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Increase the frequency of large trees, increase structural diversity of vegetation, and improve the continuity and distribution of old forests across the landscape;	31	11	Forestwide, All Forests	Old Forest Ecosystems and Associated Species	Goal	NA	NA	DEIS Purpose and Need 1.01
Protect, increase, and perpetuate desired conditions of old forest ecosystems and conserve species associated with these ecosystems while meeting people's needs for commodities and outdoor recreation activities;	31	11	Forestwide, All Forests	Old Forest Ecosystems and Associated Species	Goal	NA	NA	DEIS Purpose and Need 1.01; Purpose and Need 1.03
Restore forest species composition and structure following large scale, stand-replacing disturbance events.	31	11	Forestwide, All Forests	Old Forest Ecosystems and Associated Species	Goal	NA	NA	DEIS Purpose and Need 1.01-G; Alternative 1 and Alternative 3 Salvage for NRV based Restoration proposed action.
Goals for fire and fuels management include reducing threats to communities and wildlife habitat from large, severe wildfires and re-introducing fire into fire-adapted ecosystems.	34	13	Forestwide, except in Wilderness and Wild and Scenic Rivers. All Forests	Fire and Fuels Management	Goal	NA	NA	Purpose and Need 1.01; Alternatives 1, 3, and 4.
Treating fuels in a manner that significantly reduces wildland fire intensity and rate of spread, thereby contributing to more effective fire suppression and fewer acres burned;	34	13	Forestwide, except in Wilderness and Wild and Scenic Rivers. All Forests	Fire and Fuels Management	Goal	NA	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 Alternatives 1, 3, and 4
Treating hazardous fuels in a cost-efficient manner to maximize program effectiveness	34	13	Forestwide, except in Wilderness and Wild and Scenic Rivers. All Forests	Fire and Fuels Management	Goal	NA	NA	DEIS Purpose and Need 1.02
Actively restoring fire-adapted ecosystems by making demonstrated progress in moving acres out of unnaturally dense conditions (in other words, moving acres from condition class 2 or 3 to condition class 1).	34	13	Forestwide, except in Wilderness and Wild and Scenic Rivers. All Forests	Fire and Fuels Management	Goal	NA	NA	DEIS Purpose and Need 1.01; DEIS Chapter 3.02 - Need 1
Managing hazardous fuels in and around communities combined with strategic placement of fuels treatments across broad landscapes to modify wildland fire behavior.	34	13	Forestwide, except in Wilderness and Wild and Scenic Rivers. All Forests	Fire and Fuels Management	Goal	NA	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 Alternatives 1, 3, and 4
Strategically placing treatment areas across landscapes to interrupt potential fire spread,	34	13	Forestwide, except in Wilderness and Wild and Scenic Rivers. All Forests	Fire and Fuels Management	Goal	NA	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 Alternatives 1, 3, and 4
Removing sufficient material in treatment areas to cause a fire to burn at lower intensities and slower rates of spread compared to untreated areas,	34	13	Forestwide, except in Wilderness and Wild and Scenic Rivers. All Forests	Fire and Fuels Management	Goal	NA	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 Alternatives 1, 3, and 4
Considering cost-efficiency in designing treatments to maximize the number of acres that can be treated under a limited budget	34	13	Forestwide, except in Wilderness and Wild and Scenic Rivers. All Forests	Fire and Fuels Management	Goal	NA	NA	DEIS Chapter 3.01, Issue 4
Establishing and maintaining a diversity of structural and seral conditions in landscapes in proportions that are ecologically sustainable at the watershed scale;	35	14	Hardwood Ecosystems, except in Wilderness and Wild and Scenic Rivers. All Forests	Lower Westside Hardwood Ecosystems	Goal	NA	NA	DEIS Purpose and Need 1.01, DEIS Chapter 2.01 Alternatives 1, 3, and 4
Establishing and maintaining sufficient quality and quantity of hardwood ecosystems to provide important habitat elements for wildlife and native plant species.	35	14	Hardwood Ecosystems, except in Wilderness and Wild and Scenic Rivers. All Forests	Lower Westside Hardwood Ecosystems	Goal	NA	NA	DEIS Purpose and Need 1.01, DEIS Chapter 2.01 Alternatives 1, 3, and 4
Establishing and maintaining sufficient regeneration and recruitment of young hardwood trees over time to replace mortality of older trees;	35	14	Hardwood Ecosystems, except in Wilderness and Wild and Scenic Rivers. All Forests	Lower Westside Hardwood Ecosystems	Goal	NA	NA	DEIS Purpose and Need 1.01, DEIS Chapter 2.01 Alternatives 1, 3, and 4

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Fuels objectives have first priority in developing treatment area prescriptions. However, prescriptions for treatment areas may also address identified needs for increasing stand resistance to mortality from insects and disease. Thinning densely stocked stands may be used to reduce competition and improve tree vigor thereby reducing levels of insect- and disease-caused mortality.	35	14	Forestwide, except in Wilderness and Wild and Scenic Rivers. All Forests	Fire and Fuels Management	Strategy	NA	NA	DEIS Purpose and Need 1.01, DEIS Chapter 2.01 Alternatives 1, 3, and 4
Revenues from the sale of commercial forest products may be obtained from some fuels treatments. This increases the likelihood of accomplishing the projected acres of treatment, an essential first step in achieving the desired reductions in acres burned. Where consistent with desired conditions, area treatments are designed to be economically efficient and meet multiple objectives.	35	14	Forestwide, All Forests	Fire and Fuels Management	Strategy	NA	NA	DEIS Purpose and Need 1.02; DEIS Chapter 3.01, Issue 4
Site-specific fuels treatment prescriptions are designed to modify fire intensity and spread in treated areas. Managers consider topographic position; slope steepness; predominant wind direction; and the amount and arrangement of surface, ladder, and crown fuels in developing fuels treatment prescriptions for each treatment area. Fuels treatments are intended to reduce surface, ladder, and crown fuels. Crown fuels are modified to reduce the potential for spread of crown fire.	35	14	Forestwide, except in Wilderness and Wild and Scenic Rivers. All Forests	Fire and Fuels Management	Strategy	NA	NA	DEIS Purpose and Need 1.01, DEIS Chapter 2.01 Alternatives 1, 3, and 4
Treatment patterns are to be developed using a collaborative, multi-stakeholder approach. Resource considerations factored into the strategic placement of fuels treatments include objectives for locating treatments to overlap areas of condition class 2 and 3, high density stands, and pockets of insect and disease. **Treatment areas are located to avoid PACs to the greatest extent possible. (Red portion Proposed for elimination in SERAL proposed forest plan amendment)**	35	14	Forestwide, except in Wilderness and Wild and Scenic Rivers. All Forests	Fire and Fuels Management	Strategy	NA	Yes, See DEIS Appendix B Table B.1	DEIS Purpose and Need 1.01, DEIS Chapter 2.01 Alternatives 1, 3, and 4; DEIS Appendix B, Table B.1
Manage weeds using an integrated weed management approach according to the priority set forth in FSM 2081.2: Priority 1. Prevent the introduction of new invaders. Priority 2. Conduct early treatment of new infestations. Priority 3. Contain and control established infestations. (**FSM 2900** Invasive Weed Management replaces FSM 2080, the overriding objective for managing invasive plants is to manage them using an integrated pest management approach prioritizing response actions as deemed necessary by the Forest within the following strategic objectives 1) prevention; 2) EDRR; 3) control and management; 4) restoration; 5) organizational collaboration (FSM 2902, 2011).	36	14	Forestwide, All Forests	Noxious Weeds Management	Goal	NA	NA	DEIS Purpose and Need 1.04; DEIS Chapter 2.01 A.iii; C.iii; D.iii
Air Resource Inventory and Monitoring: This practice involves identification and monitoring of air pollution sensitive receptors on the Forest. Emphasis is on Class I airsheds (Wilderness enacted prior to 1977) but Forest wide receptors are included. In Class I airsheds, air quality related values (AQRVs) are to be identified, inventoried and monitored to determine condition and trend. An AQRV is any value that may be impacted by air pollution, such as forest vegetation, water and visibility. In Class II airsheds (post-1977 Wilderness and all other	NA	15	Forestwide	Air Quality	Management Practices	NA	NA	Standard implementation Practice

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Forest lands), the AQRVs may be monitored as well as air pollutants from Forest management activities (recreational, smoke emissions, vehicles, etc.).								
Cultural Resource Inventory and Evaluation: This includes cultural resource survey to identify and record all locatable sites on Forest land and land affected by Forest-permitted projects. It also includes ways to assess the significance of or impacts on cultural resources, including test excavations and historical studies. Cultural resources include historical districts, sites, buildings, structures, objects or areas that may have historical, cultural, or archaeological value.	NA	15	Forestwide	Cultural Resources	Management Practices	NA	NA	All required cultural resource surveys and evaluation have been completed. DEIS Chapter 2.03 Management Requirements C.1; C.2; C.3
Prevention of Significant Deterioration (PSD) Permit Application Review: This practice includes participation in the review process for all PSD permit applications which may impact air quality on the Forest. PSD is a permitting process under the Clean Air Act which regulates emissions from major stationary sources of air pollution. If such a source is proposed on or within an impactable distance of the Forest, review is mandatory. This process is applicable in Class I areas where only minimal increments of emissions are allowed.	NA	15	Forestwide	Air Quality	Management Practices	NA	NA	Standard implementation Practice
Smoke Management - Prescribed Fire: This practice is established for managing smoke from prescribed fire, so emissions meet applicable state and/or federal standards. Prescribed fire includes but is not limited to burning of timber residue, improving wildlife habitat and range type conversion. Prescribed fires are managed by rules of the local Air Pollution Control District (APCD) and recently by the 1990 CAA amendments, which require the application of Best Available Control Measures (BACMs) to reduce particulate emissions. BACMs are a combination of practices intended to reduce emissions to the lowest practicable amount. BACMs are accomplished by diluting or dispersing emissions, or by preventing potential emission sources whenever possible. Examples of BACMs include: 1) Reduction of pollutants by; limiting the mass of material burned; burning under moist fuel conditions when broadcast burning; shorten the smoldering combustion period; and increase combustion efficiency by encourage the flaming stage of fire when burning piles. 2) Dilution of pollutant concentrations over time by; reducing the rate of release of emissions per unit area; burning during optimum met conditions; and coordinate daily and seasonally with older burning permittees in the area to prevent standard exceedances.	NA	15	Forestwide	Air Quality	Management Practices	NA	NA	Standard implementation Practice
Cultural Resource Protection: This includes physical protection, public contact, signing, patrolling, law enforcement actions, stabilization, restoration of damage to cultural properties, mitigative excavation (data recovery), or other activities associated with protection of	NA	16	Forestwide	Cultural Resources	Management Practices	NA	NA	All required cultural resource surveys and evaluation have been completed. DEIS Chapter 2.03 Management Requirements C.1; C.2; C.3

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cultural resources.								
Fire Management: Fire Management includes preparing for, administering and managing fire protection activities on wildlands within the National Forest Boundary. The practice of Fire Management includes but is not limited to the following types of activities: taking actions to reduce the number of human-caused fires (Fire Prevention), taking action to detect forest fires (Fire Detection)., planning and implementing strategies prior to Wildfire Suppression (Fire Pre-attack), Implementation of a Wilderness Fire Program (Prescribed Natural Fire), and suppression of wildfires (Fire Suppression). The objective of Fire Management activities is to respond to each wildfire ignition in a timely manner with appropriate forces at a minimum cost consistent with Land and Resource Management direction.	NA	16	Forestwide	Fire and Fuels	Management Practices	NA	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i
Fish and Wildlife Habitat Administration: Wildlife, fish, or plant management includes habitat improvements and/or maintenance. Objectives may be met through wildlife projects or implemented by other resource projects or activities that are designed and implemented based on input from a wildlife or fisheries biologist, or botanist. Treatment can be considered an improvement if the net effect of the project or activity results in meeting a specified objective for wildlife, fish, or sensitive plants. Treatment can be considered maintenance when such work, based upon a biologist's input, improves or maintains existing habitat conditions or minimizes habitat losses. Much of the coordination will be accomplished through interactions with project planners from functional areas such as timber sales, fuels management, range improvement, access road location, and recreational facility design. All activities are designed to meet Regional Standards and Guidelines, planning direction and legal mandates for fish, wildlife and sensitive plants through the use of inventories, studies, surveys and monitoring.	NA	16	Forestwide	Fish and Wildlife	Management Practices	NA	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i
Fuels Management: Fuels Management includes research, inventory, planning, and implementation of the treatment of slash residue fuels created by past or current management activities (Activity Fuels), and or the treatment of naturally occurring fuels (Natural Fuels). The practice of Fuels Management includes but is not limited to the following types of activities: for example, burning (Prescribed Fire), re-arrangement, removal, type conversion, and fuel break construction. The objective of Fuels Management is to prepare timber harvest areas for natural or artificial regeneration, to improve range and wildlife habitat, to develop and maintain fuel profiles that contribute to the most cost-efficient Fire Protection program consistent with Land and Resource Management direction.	NA	16	Forestwide	Fire and Fuels	Management Practices	NA	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i

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Late Successional Stage Habitat Management: Includes activities that maintain old-growth forest habitat in a condition suitable for featured species. Activities may include silvicultural treatment to maintain desired canopy closure or structure, prescribed burning, maintenance or enhancement of snags and down logs, control of human access, closure or location of roads, and informational and educational signing. Depending on requirements of featured species, uneven-age or all-age conditions may be maintained. Featured species may include bald eagle, pileated woodpecker, tree squirrels, goshawk, spotted owl, fisher, pine marten, and others.	NA	17	Management Area Specific	Fish and Wildlife	Management Practices	NA	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i
Recovery Species Administrative Management: Activities designed to protect or improve habitat for Endangered, Threatened, Rare, and Sensitive species through administrative measures. Activities may include: coordination with appropriate agencies; inventories and surveys; and restriction of human access to critical or essential habitat through road closures, special area designation, and timing of timber harvest and other management activities. Species affected may include peregrine falcon, bald eagle, Lahontan cutthroat trout, wolverine, red fox, fisher, marten, goshawk, great gray owl, spotted owl, and willow flycatcher.	NA	17	Forestwide	Fish and Wildlife	Management Practices	NA	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i
Insect and Disease Management: Surveillance, detection, planning and research activities related to insect and disease management. Also includes evaluation, prevention and suppression activities needed to protect resources at levels commensurate with resource management goals and objectives.	NA	18	Forestwide	Forest Pests	Management Practices	NA	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i
Avoid vegetation and fuels management activities within PACs to the greatest extent feasible. Reduce hazardous fuels in PACs in defense zones when they create an unacceptable fire threat to communities. Where PACs cannot be avoided in the strategic placement of treatments, ensure effective treatment of surface, ladder, and crown fuels within treated areas. If nesting or foraging habitat in PACs is mechanically treated, mitigate by adding acreage to the PAC equivalent to the treated acreage wherever possible. Add adjacent acres of comparable quality wherever possible.	45	180	California Spotted Owl and Northern Goshawk PACs, All Forests	California Spotted owl and northern goshawk PACs	Objective	NA	**Yes, See DEIS Appendix B Table B.1**	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i; DEIS Chapter 3.01 - Issue 1A; Issue 1B; Issue 6A; Issue 6B; Issue 6C, DEIS Chapter 3.02 Need 1.
Maintain PACs so that they continue to provide habitat conditions that support successful reproduction of California spotted owls and northern goshawks.	45	180	California Spotted Owl and Northern Goshawk PACs, All Forests	California Spotted owl and northern goshawk PACs	Intent	NA	**Yes, See DEIS Appendix B Table B.1**	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i; DEIS Chapter 3.01 - Issue 1A; Issue 1B; Issue 6A; Issue 6B; Issue 6C, DEIS Chapter 3.02 Need 1.
Treat fuels using a landscape approach for strategically placing area treatments to modify fire behavior. Retain existing suitable habitat, recognizing that habitat within treated areas may be modified to meet fuels objectives. Accelerate development of currently unsuitable habitat (in non-habitat inclusions, such as plantations) into suitable condition. Arrange treatment patterns and design treatment prescriptions to avoid the highest quality habitat (CWHR types 5M, 5D, and 6) wherever possible.	46	185	California Spotted Owl HRCAs, All Forests	Wildlife	Management Intent	NA	**Yes, See DEIS Appendix B Table B.1**	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i; DEIS Chapter 3.01 - Issue 1A; Issue 1B; Issue 6A; Issue 6B; Issue 6C, DEIS Chapter 3.02 Need 1.

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General Forest: Actively manage general forest areas to maintain, and enhance a variety of vegetative conditions. Strategically place fuels treatments to modify wildfire behavior. Reduce hazardous fuels in key areas to lessen the threat of high severity fire.	48	186	General Forest, All Forests	Vegetation	Intent	NA	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i
Old Forest Emphasis Area: Establish and maintain a pattern of area treatments that is effective in: - modifying fire behavior. - culturing stand structure and composition to generally resemble pre-settlement conditions. - reducing susceptibility to insect/pathogen drought-relate tree mortality.	48	186	Old Forest Emphasis Areas, All Forests	Old Forest Emphasis Areas	Objective	NA	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i
Old Forest Emphasis Area: Focus management activities on the short-term goal of reducing the adverse effects of wildfire. Acknowledge the need for a longer-term strategy to restore both the structure and processes of these ecosystems	48	186	Old Forest Emphasis Areas, All Forests	Old Forest Emphasis Areas	Objective	NA	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i
General Forest: Design economically efficient treatments to reduce hazardous fuels.	48	187	General Forest, All Forests	Vegetation	Objective	NA	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i
General Forest: Reduce the risk of insect/pathogen drought related mortality by managing stand density levels.	48	187	General Forest, All Forests	Vegetation	Objective	NA	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i
General Forest: Establish and maintain a pattern of area treatments that is effective in modifying wildfire behavior.	48	187	General Forest, All Forests	Vegetation	Objective	NA	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i
Old Forest Emphasis Areas: Maintain or develop old forest habitat in: - areas containing the best remaining large blocks or landscape concentrations of old forest; and/or - areas that provide old forest functions (such as connectivity of habitat over a range of elevations to allow migration of wide-ranging old-forest-associated species	48	186	Old Forest Emphasis Areas, All Forests	Old Forest Emphasis Areas	Intent	NA	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i
Old Forest Emphasis Areas: Establish and maintain a pattern of area treatments that is effective in modifying wildfire behavior. Maintain and/or establish appropriate species composition and size classes. Reduce the risk of insect/pathogen drought related mortality by managing stand density levels. Design economically efficient treatments to reduce hazardous fuels	48	186	Old Forest Emphasis Areas, All Forests	Old Forest Emphasis Areas	Objective	NA	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i
Sensitive Plants Interim and Recover Management: Activities designed to protect and restore populations of Endangered, Threatened, and Sensitive plants. Interim phase consists of input to planning and project coordination, formal and informal consultation, synecological studies, collection control, population monitoring, and botanical investigations. Recovery phase consists of: species management guides, habitat management and improvement, land exchanges and acquisition, artificial propagation or reintroductions, and population evaluation and monitoring.	NA	22	Forestwide	Sensitive Plants	Management Practices	NA	NA	DEIS Purpose and Need 1.01 and Purpose and Need 1.04; DEIS Chapter 2.01 A.iii; C.iii; and D.iii; and 2021-1119_DRAFT_SERAL_Botany_BIologicalEvaluation

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Soil Support Services: The objectives of the soil resource management program are met through the application of the following major activities:1. Soil Resource Inventories (SRI): includes soil maps, description of soil characteristics, and interpretations for management. They provide the basis for displaying the capabilities and limitations of the soil resource. SRIs at some level of intensity have been completed on all NFS lands in Region 5 according to National Cooperative Soil Survey standards. These SRIs are suited for forest land and resource management planning, but can be used for project planning with field verification. Detailed SRI'S are being done on an as needed basis for project planning on most forests. SRI'S are currently being done in the context of Coordinated Resource Inventories (CRI) in order to better define ecological map units.2. Soil Management Services: includes the development, transfer, and application of knowledge about soil characteristics and responses to management for planning specific timber, engineering, range, wildlife, fire and watershed management activities. Support is primarily in the form of ID team participation in project and forest land and resource management planning.3. Soil Quality Monitoring: provides the documentation of how the Forest Service maintains or improves long-term soil productivity, soil hydrologic function and soil environmental health. Soil quality standards have been selected in the region to serve as a guide to help detect significant soil quality changes, evaluate the need to adjust practices and to rehabilitate deteriorated soil conditions.4. Soil Resource Data Management and Analysis: includes the use of soil data bases and programs to store, retrieve, analyze and provide pertinent data for GIS and corporate data base systems. Forest Service soil data systems are coordinated with other agencies involved in the National Cooperative Soil Survey.5. Soil Investigations and Studies: provide the basis for the development of technical soil information and relative to soil management and classification. Investigations include administrative studies conducted by the Region or in cooperation with PSW and universities. Past studies included various aspects of soil compaction effects in forest ecosystems, soil characteristics related to compaction and erosion, and fertilization response. Currently, Region 5 and PSW are conducting a long-term soil productivity study which is part of a national framework of similar studies in other regions. This study will help to refine and validate the region's soil quality standards.6. Cooperative Soil Programs: includes participation with other agencies in California to coordinate soil resource related activities and to help solve soil resource problems. Recent accomplishments include an interagency erosion hazard rating system and OHV soil loss guide.7. Soil Resource Management Training: provided to Forest Service and non-Forest Service land managers to further understanding of the soil resource and its capabilities and limitations for management.	NA	22	Forestwide	Soils	Management Practices	NA	NA	2021-1110_DRAFT_SERAL_SoilsReport

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Soil Hydrologic Functions/Soil Environmental Health: This practice includes the design and implementation of projects which maintain or improve soil hydrologic function and soil environmental health.	NA	23	Forestwide	Soils	Management Practices	NA	NA	2021-1110_DRAFT_SERAL_SoilsReport
Soil Resource Improvement (Planning, Treatment, and Maintenance): This practice includes planning, implementation and maintenance of projects which maintain or improve soil productivity. Soil resource improvement is commonly accomplished through watershed, timber stand, wildlife or rangeland improvement projects. These include soil fertilization, reduction of compaction, soil reshaping or replacement (such as placement of windrows in existing plantations), emergency burn rehabilitation plans, special erosion control, and soil stabilization projects. This practice is applicable to all areas having an identified need for maintenance or improvement of soil productivity. Generally, these soil improvement projects are related to a Watershed Improvement Needs Inventory or KV soil, improvement or restoration work within a timber sale area.	NA	23	Forestwide	Soils	Management Practices	NA	NA	2021-1110_DRAFT_SERAL_SoilsReport
Intermediate Cutting - Sanitation and Salvage: Removal of trees in areas where the objective is to develop even-aged stands. Harvesting is planned to maintain or improve growth and capture mortality until the stand is regenerated. This is accomplished by removing trees that have died or are likely to die before the next entry. This practice includes liberation, sanitation, and salvage cutting as described in Practice of Silviculture, Seventh Edition, by Smith. There are no minimum or maximum size treatment areas. This cutting method applies to all stands where the opportunities for liberation, sanitation, and salvage exist and where average stem diameter exceeds 11 inches.	NA	24	Management Area Specific	Timber	Management Practices	NA	NA	
Intermediate Cutting Method - Commercial Thinning: Removal of trees in stands of less than rotation age to periodically reduce the stocking level to a point where the stand will grow back to 90% of normal stocking as indicated in-yield tables within a specified time period. There are no minimum or maximum treatment area size. This cutting method applies to stands on all forest types which carry stocking in excess of desired amounts.	NA	24	Management Area Specific	Timber	Management Practices	NA	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i
Special Cutting - Other: A method designed to maintain or improve specific resource objectives of Management Areas. No timber yields are planned. Special cutting applies to all forest types.	NA	24	Management Area Specific	Timber	Management Practices	NA	NA	
Precommercial Thinning: Removal of surplus trees in areas with excess stocking by cutting, mowing, or herbicide injection to favor potential crop tree growth and development. Excess trees thinned do not have a commercial value because of tree size, species comparison, or access to available markets. Included in this practice are cleanings and precommercial thinning and animal, insect, and disease control as necessary.	NA	25	Management Area Specific	Timber	Management Practices	NA	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i
Road Construction and Reconstruction: Construction and reconstruction of Forest roads. This activity includes long-term and temporary roads.	NA	25	Forestwide	Transportation and Facilities	Management Practices	NA	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.ii;and C.ii;

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Water Quality Management: This practice includes measures to protect and enhance water quality Forest wide. It is accomplished through the implementation of water quality Best Management Practices (BMPs) as well as by compliance with other applicable federal and state water quality standards. The BMPs are a water quality, management system which contain nearly 100 individual practices designed to minimize or prevent water pollution generated by non-point sources (see FSH 2509.22, Chapter 40). BMPs are applicable to all Forest management activities including timber harvest, road construction, mining, recreation, vegetation manipulation, fire management, watershed management and grazing.	NA	26	Forestwide	Water	Management Practices	NA	NA	2021-1118_DRAFT_SERAL Watershed Report; 2021-1117_DRAFT_SERAL_BMP_checklist.pdf
Water Quantity Management: This practice involves managing for water yield improvement, reviewing hydropower projects and managing water rights. Water yield increases are supported where economically feasible and environmentally acceptable. Activities could include weather modification and vegetative manipulation to increase water yield or alter runoff timing. Review of hydropower projects includes assessing and mitigating impacts of such proposals. Water rights involves the management of the beneficial uses of water on the Forest through legal statutes relating to the appropriation of water for such uses as domestic, in-stream, recreation, power and irrigation.	NA	26	Forestwide	Water	Management Practices	NA	NA	2021-1118_DRAFT_SERAL Watershed Report; 2021-1117_DRAFT_SERAL_BMP_checklist.pdf
Watershed Maintenance and Improvement: This practice includes measures to maintain watersheds in good condition and to improve degraded lands. This is accomplished by maintaining a water resource inventory of all applicable Forest watersheds so that condition is understood and need for improvement can be identified. Watershed improvement needs (WIN) projects are implemented to improve watershed condition where necessary. Such projects include stream channel stabilization, meadow rehabilitation and revegetation of degraded sites. Watershed condition surveys are scheduled periodically and are undertaken in response to disasters such as flood, fire, earthquake and avalanche.	NA	27	Forestwide	Water	Management Practices	NA	NA	2021-1118_DRAFT_SERAL Watershed Report; 2021-1117_DRAFT_SERAL_BMP_checklist.pdf
Proposed Wild and Scenic River Management: Management of proposed Wild and Scenic River segments: to protect the free flowing condition of the river; to preserve and enhance their outstandingly remarkable values; and to maintain conditions at the highest possible Wild, Scenic or Recreational classification for which the segment is eligible. Includes administration, operation and maintenance within 1/4 mile on each side of the high water elevation.	NA	27	Management Area Specific	Wild and Scenic Rivers	Management Practices	NA	NA	DEIS Chapter 3.01; Issue 5
Wild and Scenic River Management: Management of the Wild and Scenic River resource and its use to establish standards and management objectives developed in approved Wild and Scenic River management plans. Includes administration, operation and maintenance within designated Wild, Scenic, or Recreational rivers.	NA	27	Management Area Specific	Wild and Scenic Rivers	Management Practices	NA	NA	DEIS Chapter 3.01; Issue 5

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Air Resource Inventory and Monitoring (1-A): Monitor air quality to determine effects on forest resources from upwind sources and forest management activities. Emphasis will be placed on monitoring air quality related values (AQRVs) in Class I airsheds. This includes measuring condition and trend of sensitive air pollution receptors such as lakes and streams, visibility and such vegetation as ponderosa and Jeffrey pines and certain lichens. The objective of monitoring is to maintain or improve air quality to meet Federal and State Clean Air Act regulations. Class I airsheds cover Wilderness lands enacted prior to 1977. Class II airsheds cover all other forest lands, including Wilderness enacted since 1977 with the exception of new acres added to existing Class I areas. These new acres are also Class I.	NA	31	Forestwide	Air Quality	General Direction	NA	NA	Standard implementation Practice
Review of PSD (Prevention of Significant Deterioration) Applications (1-C): Review all PSD permit applications which may result in an adverse impact on Class I areas. Note: PSD is a part of the Federal Clean Air Act designed to regulate emissions from new major stationary sources of pollution.	NA	31	Forestwide	Air Quality	General Direction	NA	NA	Standard implementation Practice
Smoke Management (1-B): Prescribed fire shall be conducted so that smoke emissions are the lowest achievable, Best Available Control Measures (BACMs) will be applied to ensure emission reductions.	NA	31	Forestwide	Air Quality	General Direction	NA	NA	Standard implementation Practice
Cultural Resource Inventory and Evaluation (2-A): Complete a cultural resource inventory prior to any land disposal action or any Forest or Forest- permitted or assisted action, activity or program that has the potential of altering prehistoric or historic cultural values to identify all potentially eligible cultural properties which may be affected (36 CFR 219.24).	NA	31	Forestwide	Cultural Resources	General Direction	NA	NA	All required cultural resource surveys and evaluation have been completed. DEIS Chapter 2.03 Management Requirements C.1; C.2; C.3
Cultural Resource Inventory and Evaluation (2-A): Field survey coverage intensity shall be determined according to the Secretary of Interior's Standards and Guidelines on Archaeology and Historic Preservation and California Office of Historic Preservation Archaeological Survey Guidelines. Follow the standards for inventory reports in the Secretary of the Interior's Standards and Guidelines on Archaeology and Historic Preservation.	NA	31	Forestwide	Cultural Resources	Standard /Guideline	Cultural Resource Inventory and Evaluation (2-A) S&G	NA	All required cultural resource surveys and evaluation have been completed. DEIS Chapter 2.03 Management Requirements C.1; C.2; C.3
Cultural Resource Inventory and Evaluation (2-A): Follow site recording methods established by the California Office of Historic Preservation Archaeological Site Record Handbook.	NA	31	Forestwide	Cultural Resources	Standard /Guideline	Cultural Resource Inventory and Evaluation (2-A) S&G	NA	All required cultural resource surveys and evaluation have been completed. DEIS Chapter 2.03 Management Requirements C.1; C.2; C.3

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Cultural Resource Protection (2-B): Comply with 36 CFR 800 regulations and follow the guidelines in 36 CFR 66, FSM 2361 and the 13 principles in the "Treatment of Archaeological Properties" Handbook (ACHP). Issue permits under the Archaeological Resources Protection Act of 1979 (P.L. 96-95) for non-Federal archaeological research projects on the Forest.	NA	32	Forestwide	Cultural Resources	Standard /Guideline	Cultural Resource Protection (2-B) S&G	NA	DEIS Chapter 6.06
Cultural Resource Inventory and Evaluation (2-A): Apply the Criteria of Effect in 36 CFR 800, and follow FSM 2361 for determining the effect of an undertaking.	NA	32	Forestwide	Cultural Resources	Standard /Guideline	Cultural Resource Inventory and Evaluation (2-A) S&G	NA	DEIS Chapter 6.06
Cultural Resource Inventory and Evaluation (2-A): Assess the scientific, historic and ethnic significance for each cultural property before determining further treatment (36 CFR 219.24).	NA	32	Forestwide	Cultural Resources	General Direction	NA	NA	DEIS Chapter 6.06
Cultural Resource Inventory and Evaluation (2-A): Evaluate the effect of Forest undertakings on the resource.	NA	32	Forestwide	Cultural Resources	General Direction	NA	NA	DEIS Chapter 6.06
Cultural Resource Inventory and Evaluation (2-A): Use appropriate Programmatic Agreements and Treatment Plans whenever possible.Apply the National Register of Historic Places criteria in 36 CFR 60 and regulations in 36 CFR 63 to determine the eligibility of a cultural property to the National Register.Use FSM 2361, FSM 1680, and Advisory Council on Historic Preservation's "Treatment of Archaeological Properties: A Handbook", and the traditional values of local Miwok, Washoe and Piute Indian communities as guidelines for evaluating significance.	NA	32	Forestwide	Cultural Resources	Standard /Guideline	Cultural Resource Inventory and Evaluation (2-A) S&G	NA	DEIS Chapter 6.06
Cultural Resource Protection (2-B): All identified cultural resources are to be protected until they are evaluated. The integrity and significant values of eligible properties and National Historic Landmarks are to be protected. When necessary, mitigative excavation or data recovery may be accomplished.	NA	32	Forestwide	Cultural Resources	General Direction	NA	NA	DEIS Chapter 6.06
Cultural Resource Protection (2-B): Use the guidelines in FSM 2361 and FSM 1680 for developing and implementing protective measures. Comply with 36 CFR 800 regulations and follow the guidelines in 36 CFR 66, FSM 2361, and the 13 principles in the "Treatment of Archaeological Properties" Handbook (ACHP). Conduct compliance inspections on all special use permits containing cultural resource stipulations or conditions. Protect documents, photographs and other information relevant to the administrative, social and contextual history of the Forest for research and public use. Utilize law enforcement patrols to help prevent site vandalism and conduct law enforcement investigations when cultural resources are impacted using ARPA, 36 CFR 261.9, and other applicable laws and regulations.	NA	32	Forestwide	Cultural Resources	Standard /Guideline	Cultural Resource Inventory and Evaluation (2-A) S&G	NA	DEIS Chapter 6.06

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Cultural Resource Inventory and Evaluation (2-A): Consult with members of the potentially affected local Native American community to identify specific locations and issues.	NA	32	Forestwide	Cultural Resources	Standard /Guideline	Cultural Resource Inventory and Evaluation (2-A) S&G	NA	DEIS Chapter 6.06
1. Strategic placement of fuels treatments should also consider objectives for locating treatment areas to overlap with areas of condition class 2 and 3, high density stands, and pockets of insect and disease. **Avoid PACs to the greatest extent possible when locating area treatments.** Incorporate areas that already contribute to wildfire behavior modification, including timber sales, burned areas, bodies of water, and barren ground, into the landscape treatment area pattern. Identify gaps in the landscape pattern where fire could spread at some undesired rate or direction and use treatments (including maintenance treatments and new fuels treatments) to fill identified gaps.	49	33	Forestwide, except in Wilderness and Wild and Scenic Rivers. All Forests	Fire and Fuels Management	Standard /Guideline	1	**Yes, See DEIS Appendix B Table B.1**	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i
1. Strategically place area fuels treatments across the landscape to interrupt fire spread and achieve conditions that: (1) reduce the size and severity of wildfire and (2) result in stand densities necessary for healthy forests during drought conditions.	49	33	Forestwide, except in Wilderness and Wild and Scenic Rivers. All Forests	Fire and Fuels Management	Standard /Guideline	1	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i
1. Complete a landscape-level design of area treatment patterns prior to project-level analysis. Develop treatment patterns using a collaborative, multi-stakeholder approach. Determine the size, location, and orientation of area fuels treatments at a landscape-scale, using information about fire history, existing vegetation and fuels condition, prevailing wind direction, topography, suppression resources, attack times, and accessibility to design an effective treatment pattern. The spatial pattern of the treatments is designed to reduce rate of fire spread and fire intensity at the head of the fire.	49	33.1	Forestwide, except in Wilderness and Wild and Scenic Rivers. All Forests	Fire and Fuels Management	Standard /Guideline		NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i
2. Vegetation within treatment areas should be modified to meet desired surface ladder, and crown fuel conditions as well as stand densities necessary for healthy forests during drought conditions. Site specific prescriptions should be designed to reduce fire intensity, rate of fire spread, crown fire potential, mortality in dominant and co-dominant trees, and tree density. Managers should consider such variables as the topographic location of the treatment area, slope steepness, predominant wind direction, and the amount and arrangement of surface, ladder, and crown fuels in developing fuels treatment prescriptions.	49	33.2	Forestwide, except in Wilderness and Wild and Scenic Rivers. All Forests	Fire and Fuels Management	Standard /Guideline	2	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i

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3. **Plantations (0x-2x)**: • 3 inches and smaller surface fuel load: less than 5 tons per acre, • less than 0.5 foot fuel bed depth, • stocking levels that provide well-spaced tree crowns (for example, approximately 200 trees per acre in 4 inch dbh trees), • less than 50 percent surface area with live fuels (brush), and • tree mortality less than 50 percent of the existing stocking under 90th percentile fire weather conditions (2x type only)	49-50	33.3	Forestwide, except in Wilderness and Wild and Scenic Rivers. All Forests	Fire and Fuels Management	Standard /Guideline	3	NA	
3. Where young **plantations (generally Pacific Southwest Region size classes 0x, 1x, 2x**) are included within area treatments, apply the necessary silvicultural and fuels reduction treatments to: (1) accelerate the development of key habitat and old forest characteristics, (2) increase stand heterogeneity, (3) promote hardwoods, and (4) reduce risk of loss to wildland fire. In size class 2x plantations, treatments should be designed to reduce fire intensity, rate of fire spread and tree mortality.	49-50	33.3	Forestwide, except in Wilderness and Wild and Scenic Rivers. All Forests	Fire and Fuels Management	Standard /Guideline	3	NA	
Fish and Wildlife Habitat Administration (5-A): Provide habitat for diverse and viable populations of all native and desired non-native wildlife and fish and all native plants. Maintain and improve habitat for Federally listed T&E species and give special attention to sensitive species to see that they do not become T&E. Cooperate with State and Federal agencies in meeting mutual goals.	NA	38.3	Forestwide	Fish and Wildlife	General Direction	Fish and Wildlife Habitat Administration (5-A)	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i; DEIS Chapter 6.02, 6.03; 6.05; 2021-1119_DRAFT_SERAL_AquaticBiologicalAssessmentEvaluation; 2021-1119_DRAFT_SERAL_Botany_BIologicalEvaluation; 2021-1202_DRAFT_SERAL_Wildlife_BiologicalEvaulation
4. Design mechanical treatments in brush and shrub patches to remove the material necessary to achieve the following outcomes from wildland fire under 90th percentile fire weather conditions: (1) wildland fires would burn with an average flame length of 4 feet or less and (2) fire line production rates would be doubled. Treatments should be effective for more than 5 to 10 years.	50	33.4	Forestwide, except in Wilderness and Wild and Scenic Rivers. All Forests	Fire and Fuels Management	Standard /Guideline	2	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i
5. Design a sequence of fuel reduction treatments in conifer forest types (including 3x plantation types) to achieve the following standards within the treatment area:• an average of 4-foot flame length under 90th percentile fire weather conditions.• surface and ladder fuels removed as needed to meet design criteria of less than 20 percent mortality in dominant and co-dominant trees under 90th percentile weather and fire behavior conditions.• tree crowns thinned to meet design criteria of less than 20 percent probability of initiation of crown fire under 90th percentile weather conditions.	50	33.5	Forestwide, except in Wilderness and Wild and Scenic Rivers. All Forests	Fire and Fuels Management	Standard /Guideline	4	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i
6. For all mechanical thinning treatments, design projects to retain all live conifers 30 inches dbh or larger. Exceptions are allowed to meet needs for equipment operability.	50	34.6	Forestwide, except in Wilderness and Wild and Scenic Rivers. All Forests	Mechanical Thinning	Standard /Guideline	6	Yes, See DEIS Appendix B Table B.1	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i

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7. For mechanical thinning treatments in mature forest habitat (CWHR types 4M, 4D, 5M, 5D, and 6) outside WUI defense zones: • Design projects to retain at least 40 percent of the existing basal area. The retained basal area should generally be comprised of the largest trees. • Where available, design projects to retain 5 percent or more of the total treatment area in lower layers composed of trees 6 to 24 inches dbh within the treatment unit. • Design projects to avoid reducing pre-existing canopy cover by more than 30 percent within the treatment unit. Percent is measured in absolute terms (for example, canopy cover at 80 percent should not be reduced below 50 percent.) • Within treatment units, at a minimum, the intent is to provide for an effective fuels treatment. Where existing vegetative conditions are at or near 40 percent canopy cover, projects are to be designed remove the material necessary to meet fire and fuels objectives.	50-51	34.7	Forestwide, outside the WUI: Defense Zone, outside Wilderness and Wild and Scenic Rivers, and outside the eastside pine type; All Forests	Mechanical Thinning	Standard /Guideline		**Yes, See DEIS Appendix B Table B.1**	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i
• Within California spotted owl Home Range Core Areas: Where existing vegetative conditions permit, design projects to retain at least 50 percent canopy cover averaged within the treatment unit. Exceptions are allowed in limited situations where additional trees must be removed to adequately reduce ladder fuels, provide sufficient spacing for equipment operations, or minimize re-entry. Where 50 percent canopy cover retention cannot be met for reasons described above, retain at least 40 percent canopy cover averaged within the treatment unit.	50-51	34.71	Forestwide, outside the WUI: Defense Zone, outside Wilderness and Wild and Scenic Rivers, and outside the eastside pine type; All Forests	Mechanical Thinning	Standard /Guideline		**Yes, See DEIS Appendix B Table B.1**	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i
• Outside of California spotted owl Home Range Core Areas: Where existing vegetative conditions permit, design projects to retain at least 50 percent canopy cover within the treatment unit. Exceptions are allowed where project objectives require additional canopy modification (such as the need to adequately reduce ladder fuels, provide for safe and efficient equipment operations, minimize re-entry, design cost efficient treatments, and/or significantly reduce stand density.) Where canopy cover must be reduced below 50 percent, retain at least 40 percent canopy cover averaged within the treatment unit.	50-51	34.72	Forestwide, outside the WUI: Defense Zone, outside Wilderness and Wild and Scenic Rivers, and outside the eastside pine type; All Forests	Mechanical Thinning	Standard /Guideline		**Yes, See DEIS Appendix B Table B.1**	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i
Within California spotted owl PACs, where treatment is necessary, remove only material needed to meet project fuels objectives. Focus on removal of surface and ladder fuels.	50-51	34.73	Forestwide, outside the WUI: Defense Zone, outside Wilderness and Wild and Scenic Rivers, and outside the eastside pine type; All Forests	Mechanical Thinning	Standard /Guideline		**Yes, See DEIS Appendix B Table B.1**	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i
9. Standards and guidelines # 6, 7, and 8 above apply only to mechanical thinning harvests specifically designed to meet objectives for treating fuels and/or controlling stand densities.	51	34.9	Forestwide, outside the WUI: Defense Zone and outside Wilderness and Wild and Scenic Rivers; All Forests	Mechanical Thinning	Standard /Guideline	9	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i
13. Salvage harvest of dead and dying trees may be conducted to recover the economic value of this material and to support objectives for reducing hazardous fuels, improving forest health, reintroducing	52	35	Forestwide, except in Wilderness and Wild and Scenic Rivers. All Forests	Salvage	Standard /Guideline	13	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i

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fire, and/or re-establishing forested conditions.								
13. Design projects to reduce potential soil erosion and the loss of soil productivity caused by loss of vegetation and ground cover. Examples are activities that would: (1) provide for adequate soil cover in the short term; (2) accelerate the dispersal of coarse woody debris; (3) reduce the potential impacts of the fire on water quality; and (4) carefully plan restoration/salvage activities to minimize additional short-term effects.	52	35	Forestwide, except in Wilderness and Wild and Scenic Rivers. All Forests	Salvage	Standard /Guideline	13	NA	2021-1110_DRAFT_SERAL_SoilsReport
13. Design projects to protect and maintain critical wildlife habitat. Examples are activities that would: (1) avoid areas where forest vegetation is still largely intact; (2) provide for sufficient quantities of large snags; (3) maintain existing large woody material as needed; (4) provide for additional large woody material and ground cover as needed; (5) accelerate development of mature forest habitat through reforestation and other cultural means; and (6) provide for a mix of seral stages over time.	52	35	Forestwide, except in Wilderness and Wild and Scenic Rivers. All Forests	Salvage	Standard /Guideline	13	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i; and 2021-1202_DRAFT_SERAL_Wildlife_BiologicalEvaulation
13. Design projects to manage the development of fuel profiles over time. Examples are activities that would: (1) remove sufficient standing and activity generated material to balance short term and long-term surface fuel loading; and (2) protect remnant old forest structure (surviving large trees, snags, and large logs) from high severity re-burns or other severe disturbance events in the future.	52	35	Forestwide, except in Wilderness and Wild and Scenic Rivers. All Forests	Salvage	Standard /Guideline	13	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i
13. Design projects to recover the value of timber killed or severely injured by the disturbance. Examples are activities that would: (1) conduct timber salvage harvest in a timely manner to minimize value loss; (2) minimize harvest costs within site specific resource constraints; and (3) remove material that local managers determine is not needed for long-term resource recovery needs.	52	35	Forestwide, except in Wilderness and Wild and Scenic Rivers. All Forests	Salvage	Standard /Guideline		NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i
Fire Prevention (4-A): Fire prevention emphasis will be placed on those areas where greatest potential for loss to life, property and high value natural resources occur.	NA	35.1	Forestwide	Fire and Fuels	General Direction	NA	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i
15. Use the best available information for identifying dead and dying trees for salvage purposes as developed by the Pacific Southwest Region Forest Health Protection Staff.	52	35.15	Forestwide, except in Wilderness and Wild and Scenic Rivers. All Forests	Salvage	Standard /Guideline	15	NA	A tree is identified as a hazard based on current direction for hazard tree identification and abatement presented in Smith and Cluck 2011, USDA 2012 – Angwin et al. 2012, and USDA 2021.
16. Outside of WUI defense zones, salvage harvests are prohibited in PACs and known den sites unless a biological evaluation determines that the areas proposed for harvest are rendered unsuitable for the purpose they were intended by a catastrophic stand-replacing event.	53	35.16	Forestwide, outside the WUI: Defense Zone and outside Wilderness and Wild and Scenic Rivers; All Forests	Salvage	Standard /Guideline	16	**Yes, See DEIS Appendix B Table B.1**	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i
17. Consider ecological benefits of retaining small patches of mortality in old forest emphasis areas	53	35.17	Old Forest Emphasis Areas, outside Wilderness and Wild and Scenic Rivers; All Forests	Salvage	Standard /Guideline	17	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.01 A.i; C.i; and D.i

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Activity Fuels (4-B): All management activities which generate woody residues will have an approved fuel treatment project plan. This plan will describe the methods of treatment to be used, the estimated total cost of treatment, method of funding, responsible parties to complete treatment, and necessary measures to maintain the acceptable fuel profile. The scope of the plan should encompass the overall area affected by the activity and not be limited to each individual unit. The fuel treatments identified will meet the minimum level of treatment as described in the standards and guidelines. The fuel bed will be expressed in terms of Resistance to Control (chains/person-hour handling construction rate) and Fire Intensity Levels (FIL). Treat Fuel According to Following Priorities: All current and proposed management activities expected to generate woody re residues.	NA	36	Forestwide	Fire and Fuels	General Direction and Standard /Guideline	NA	NA	
Fuel Break Construction and Maintenance (4-B): Use fuel breaks to break up large expanses of continuous fuels, provide for firefighter access and safety, increase suppression opportunities, and provide pre-existing control points for prescribed fires. Priority setting for establishing Fuel Break Construction and Maintenance projects will consider the following factors: 1. Forest Service administrative sites or other Forest Service areas with high investment in buildings and facilities. 2. Areas that have high resource, economic, scenic, or historic value that cannot be replaced. 3. Protection of high value forest resource areas from high-risk ignitions areas.	NA	37.1	Forestwide	Fire and Fuels	General Direction	NA	NA	DEIS Purpose and Need 1.01 - G; DEIS Chapter 2.01 A.i; C.i; and D.i

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Fuel Break Construction and Maintenance (4-B): Locations and Minimum Widths 1. Utilize strategic topographic features in the establishment of fuel breaks. The order of priority for locating such features and minimum widths are as follows: - Prominent ridge tops. Minimum widths shall be 250 feet - Flat areas or valleys where ground is level or nearly level. Minimum widths shall be 300 feet. - Canyon bottoms or ravines are least desirable as fuelbreak areas. Minimum width shall be 350 feet. 2. Utilize existing and proposed road systems to provide access to and within the fuelbreak system. 3. Where necessary, agreements with private landowners will be executed to include private lands. Construction and Maintenance 1. Continuous vegetation under 12 feet tall should be broken up into naturally appearing clumps or islands of varied size and shape. Separation between clumps or islands should not provide horizontal fuel continuity across the fuel break or be positioned so that they act as a fire ladder into existing overstory. Finally, vegetation removal should be guided by the need for free movement of fire equipment throughout the fuel break. 2. All slash, snags, or other debris will be disposed of by piling, burning, chipping, or removal. 3. Fuelbreak design is to be guided by the Visual Quality Objectives for the area. It should include tying breaks into other natural or artificial openings. The overall appearance should fit into the natural landform. 4. Develop water sources where possible within the fuel break area. 5. Develop helispots, where possible, in close proximity to water sources. 6. Coordinate fuel breaks to minimize conflicts with off-highway vehicle use and management.	NA	37.2	Forestwide	Fire and Fuels	Standard /Guideline	Fuel Break Construction and Maintenance (4-B)	NA	DEIS Purpose and Need 1.01 - G; DEIS Chapter 2.01 A.i; C.i; and D.i
Prescribed Fire and Prescribed Natural Fire (4-A): Prescribed fire will be considered as a management tool for all projects where it is shown to be cost effective and has the ability to meet resource management objectives.	NA	37.3	Forestwide	Fire and Fuels	General Direction	NA	NA	DEIS Purpose and Need 1.01 - F; DEIS Chapter 2.01 A.i; C.i; and D.i
Roadside Fuel Modification (4-B): To create a roadside fuel profile which will: 1. Limit the spread and intensity of roadside ignitions until initial attack units arrive. 2. Provide firefighter access to other fire defense systems. 3. Provide a line of defense for control of wildfire.	NA	38.1	Forestwide	Fire and Fuels	General Direction	NA	NA	DEIS Purpose and Need 1.01 - G; DEIS Chapter 2.01 A.i; C.i; and D.i

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Roadside Fuel Modification (4-B): Maintain roadside fuel bed to the Activity Fuels Standards and Guidelines on all roads that have been identified for fire defense purposes. Treatment area widths for both sides of road as measured (slope distance) from road edge are as follows: 1. Slope 0-30% - 50 feet 2. Slope 30-50% - 75 feet 3. Slope 51+% - 100 feet	NA	38.2	Forestwide	Fire and Fuels	Standard /Guideline		NA	DEIS Purpose and Need 1.01 - G; DEIS Chapter 2.01 A.i; C.i; and D.i
Fish and Wildlife Habitat Administration (5-A): Management practices will allow for medium to high quality habitat for management indicator species, where potential allows, according to current habitat capability models for these species.	NA	38.4	Forestwide	Fish and Wildlife	Standard /Guideline	Fish and Wildlife Habitat Administration (5-A)	NA	DEIS Chapter 6.04; 2021-1119_DRAFT_SERAL_MIS_Report
Fish and Wildlife: Ensure that habitat needs of sensitive species are considered and that habitat needs of Federally listed Threatened and Endangered species are met.Cooperate with the California Department of Fish and Game, U.S. Fish and Wildlife Service and other concerned agencies in the preparation and implementation of Federal and State Endangered Species recovery plans, the California Fish and Wildlife Management Plan (Sikes Act) and other species habitat plans.	NA	38.5	Forestwide	Fish and Wildlife	Standard /Guideline	Fish and Wildlife	NA	DEIS Chapter 6.02, Chapter 6.03; 2021-1119_DRAFT_SERAL_AquaticBiologicalAssessmentEvaluation; 2021-1119_DRAFT_SERAL_Botany_BIologicalEvaluation; 2021-1202_DRAFT_SERAL_Wildlife_BiologicalEvaulation
10. Determine down woody material retention levels on an individual project basis, based on desired conditions. Emphasize retention of wood in the largest size classes and in decay classes 1, 2, and 3. Consider the effects of follow-up prescribed fire in achieving desired down woody material retention levels.	51	39	Forestwide, except in Wilderness and Wild and Scenic Rivers. All Forests	Snags and Down Woody Material	Standard /Guideline	10	**NA**	DEIS Chapter 2.03 Management Requirement F.4

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11. Determine snag retention levels on an individual project basis for vegetation treatments. Design projects to implement and sustain a generally continuous supply of snags and live decadent trees suitable for cavity nesting wildlife across a landscape. Retain some mid- and large diameter live trees that are currently in decline, have substantial wood defect, or that have desirable characteristics (teakettle branches, large diameter broken top, large cavities in the bole) to serve as future replacement snags and to provide nesting structure. When determining snag retention levels and locations, consider land allocation, desired condition, landscape position, potential prescribed burning and fire suppression line locations, and site conditions (such as riparian areas and ridge tops), avoiding uniformity across large areas. General guidelines for large-snag retention are as follows: • westside mixed conifer and ponderosa pine types - four of the largest snags per acre • red fir forest type - six of the largest snags per acre • eastside pine and eastside mixed conifer forest types - three of the largest snags per acre • westside hardwood ecosystems - four of the largest snags (hardwood or conifer) per acre; where standing live hardwood trees lack dead branches - six of the largest snags per acre (where they exist to supplement wildlife needs for dead material) Use snags larger than 15 inches dbh to meet this guideline. Snags should be clumped and distributed irregularly across the treatment units. Consider leaving fewer snags strategically located in treatment areas within the WUI. When some snags are expected to be lost due to hazard removal or the effects of prescribed fire, consider these potential losses during project planning to achieve desired snag retention levels.	51	39	Forestwide, except in Wilderness and Wild and Scenic Rivers. All Forests	Snags and Down Woody Material	Standard /Guideline	11	NA	DEIS Chapter 2.03 Management Requirement F.4
12. Promote shade intolerant pines (sugar and Ponderosa) and hardwoods.	52	39	Forestwide, except in Wilderness and Wild and Scenic Rivers. All Forests	Tree Species Composition	Standard /Guideline	12	NA	DEIS Purpose and Need 1.01-D; DEIS Chapter 2.Ai Forest Thinning; DEIS Chapter 3.02 Need 1.
18. Where possible, create openings around existing California black oak and canyon live oak to stimulate natural regeneration	53	39	Hardwood Ecosystems, All Forests	Hardwood Management	Standard /Guideline	18	NA	DEIS Chapter 2.Ai Forest Thinning;
19. Manage hardwood ecosystems for a diversity of hardwood tree size classes within a stand such that seedlings, saplings, and pole-sized trees are sufficiently abundant to replace large trees that die.	53	39	Hardwood Ecosystems, All Forests	Hardwood Management	Standard /Guideline	19	NA	DEIS Chapter 2.Ai Forest Thinning;
20. Retain the mix of mast-producing species where they exist within a stand	53	39	Hardwood Ecosystems, All Forests	Hardwood Management	Standard /Guideline	20	NA	DEIS Chapter 2.Ai Forest Thinning;
21. Retain all blue oak and valley oak trees except: (1) stand restoration strategies call for tree removal; (2) trees are lost to fire; or (3) where tree removal is needed for public health and safety	53	39	Hardwood Ecosystems, All Forests	Hardwood Management	Standard /Guideline	21	NA	DEIS Chapter 2.Ai Forest Thinning;

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Old Forest Ecosystems and Associated Species: A network of old forest emphasis areas managed to maintain or develop old forest habitat in areas containing the best remaining large blocks or landscape concentrations of old forest and areas that provide old forest functions (such as connectivity of habitat over a range of elevations to allow migration of wide-ranging old-forest-associated species);	31-32	11	Forestwide, All Forests	Old Forest Ecosystems and Associated Species	Strategy	NA	NA	DEIS Chapter 2.Ai Forest Thinning;
Old Forest Ecosystems and Associated Species: A proactive approach for improving forest health with management objectives to reduce susceptibility of forest stands to insect and drought-related tree mortality by managing stand density levels.	31-32	11	Forestwide, All Forests	Old Forest Ecosystems and Associated Species	Strategy	NA	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2.; DEIS Chapter 3.02 - Need 1
Old Forest Ecosystems and Associated Species: Direction for restoring ecosystems across all land allocations following large-scale catastrophic disturbance events;	31-32	11	Forestwide, All Forests	Old Forest Ecosystems and Associated Species	Strategy	NA	NA	DEIS Purpose and Need 1.01 - H; DEIS Chapter 2 Ai, Ci; and Di.
22. When planning prescribed fire or mechanical treatments in hardwood ecosystems: (1) consider the risk of noxious weed spread and (2) minimize impacts to hardwood ecosystem structure and biodiversity.	53	39	Hardwood Ecosystems, All Forests	Hardwood Management	Standard /Guideline	22	NA	DEIS Chapter 2.03
23. During mechanical vegetation treatments, prescribed fire, and salvage operations, retain all large hardwoods on the westside except where: (1) large trees pose an immediate threat to human life or property or (2) losses of large trees are incurred due to prescribed or wildland fire. Large montane hardwoods are trees with a dbh of 12 inches or greater. Large blue oak woodland hardwoods are trees with a dbh of 8 inches or greater. Allow removal of larger hardwood trees (up to 20 inches dbh) if research supports the need to remove larger trees to maintain and enhance the hardwood stand.	53	39	Hardwood Ecosystems, All Forests	Hardwood Management	Standard /Guideline	23	NA	DEIS Chapter 2.Ai, Ci, and Di
24. Prior to commercial and noncommercial hardwood and fuelwood removal in hardwood ecosystems, pre-mark or pre-cut hardwood trees to ensure that stand goals are met. Retain a diverse distribution of stand cover classes.	53	39	Hardwood Ecosystems, All Forests	Hardwood Management	Standard /Guideline	24	NA	
25. During or prior to landscape analysis, spatially determine distributions of existing and potential natural hardwood ecosystems (Forest Service Handbook (FSH) 2090.11). Assume pre-1850 disturbance levels for potential natural community distribution. Work with province ecologists or other qualified personnel to map and/or model hardwood ecosystems at a landscape scale (approximately 30,000 to 50,000 acres). Include the following steps in the analysis: (1) compare distributions of potential natural hardwood ecosystems with existing hardwood ecosystems; (2) identify locations where existing hardwood ecosystems are outside the natural range of variability for potential natural hardwood ecosystem distribution; and (3) identify hardwood restoration and enhancement projects.	53	40	Hardwood Ecosystems, All Forests	Hardwood Management	Standard /Guideline	25	NA	
26. Include hardwoods in stand examinations. Encourage hardwoods in plantations. Promote hardwoods after stand-replacing events.	53	40	Hardwood Ecosystems, All Forests	Hardwood Management	Standard /Guideline	26	NA	
27. Minimize old forest habitat fragmentation. Assess potential impacts of fragmentation on old forest associated species (particularly fisher	53	40	Forestwide, All Forests	Habitat Connectivity for Old Forest Associated	Standard /Guidelin	27	NA	2021-1202_DRAFT_SERAL_Wildlife_BiologicalEvaulation

Existing Plan Direction	SNFPA (page)	2017 Forest Plan Direction (page)	Where Existing Plan Component Applies	Resource Area	Existing Plan Component	S&G #	Proposed Project Specific Amendment?	How is SERAL Compliant?
and marten) in biological evaluations.				Species	e			
28. Assess the potential impact of projects on the connectivity of habitat for old forest associated species.	54	40	Forestwide, All Forests	Habitat Connectivity for Old Forest Associated Species	Standard /Guideline	28	NA	2021-1202_DRAFT_SERAL_Wildlife_BiologicalEvaulation
29. Consider retaining forested linkages (with canopy cover greater than 40 percent) that are interconnected via riparian areas and ridgetop saddles during project-level analysis.	54	40	Forestwide, All Forests	Habitat Connectivity for Old Forest Associated Species	Standard /Guideline	29	NA	
30. If fishers are detected outside the southern Sierra fisher conservation area, evaluate habitat conditions and implement appropriate mitigation measures to retain suitable habitat within the estimated home range. Institute project-level surveys over the appropriate area, as determined by an interdisciplinary team.	54	40	Forestwide, All Forests	Habitat Connectivity for Old Forest Associated Species	Standard /Guideline	30	NA	2021-1202_DRAFT_SERAL_Wildlife_BiologicalEvaulation
33. Conduct surveys in compliance with the Pacific Southwest Region's survey protocols during the planning process when proposed vegetation treatments are likely to reduce habitat quality in suitable California spotted owl habitat with unknown occupancy. Designate California spotted owl protected activity centers (PACs) where appropriate based on survey results.	54	40	Forestwide, All Forests	California Spotted Owl Surveys	Standard /Guideline	33	Yes, See DEIS Appendix B Table B.1	DEIS Appendix B; 2021-1202_DRAFT_SERAL_Wildlife_BiologicalEvaulation
34. Conduct surveys in compliance with the Pacific Southwest Region's survey protocols during the planning process when vegetation treatments are likely to reduce habitat quality are proposed in suitable northern goshawk nesting habitat that is not within an existing California spotted owl or northern goshawk PAC. Suitable northern goshawk nesting habitat is defined based on the survey protocol.	54	40	Forestwide, All Forests	Northern Goshawk Surveys	Standard /Guideline	34	NA	2021-1202_DRAFT_SERAL_Wildlife_BiologicalEvaulation
35. Conduct additional surveys to established protocols to follow up reliable sightings of great gray owls.	54	40	Forestwide, All Forests	Great Gray Owl Surveys	Standard /Guideline	35	NA	2021-1202_DRAFT_SERAL_Wildlife_BiologicalEvaulation
Bald Eagle (5-E): Meet the Forest's share of the bald eagle recovery plan goal of three active breeding sites.	NA	42	Forestwide	Fish and Wildlife	General Direction	NA	NA	2021-1202_DRAFT_SERAL_Wildlife_BiologicalEvaulation
Bald Eagle (5-E): For each bald eagle territory identified on the Bald Eagle Habitat Map (Map 2, Appendix I) provide 300 acres of bald eagle target nesting stands. These stands should be 150 years or older, multi-storied, having 20-40% canopy closure with an average of 10 suitable nest trees per acre where possible. Preferred species are ponderosa pine, sugar pine, and Douglas fir which are 100 to 200 feet high and dominant in the overstory. Manage for 3 to 4 hard snags per acre with the largest sizes equal to the largest trees available. Provide a ¼ mile buffer between target nest stands and developed recreation facilities. When nesting bald eagles are found, implement suitable restrictions on nearby activities based on the Regional habitat management guidelines and the habitat capability model for the species. Protect all historic and active nests, as required by the Bald Eagle Protection Act and the Migratory Bird Treaty Act.	NA	43	Forestwide	Fish and Wildlife	Standard /Guideline	Bald Eagle (5-E) S&G	NA	2021-1202_DRAFT_SERAL_Wildlife_BiologicalEvaulation

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Recovery Species Management (5-L): Maintain information on the status and known locations of all species which are candidates or proposed for Federal listing as Threatened or Endangered. Conduct a Biological Evaluation for any project which may affect a species proposed for Federal listing. Modify or mitigate projects where necessary to avoid adverse impacts to habitats for species which are candidates or proposed for Federal listing.	NA	43	Forestwide	Fish and Wildlife	Standard /Guideline		NA	DEIS Chapter 6.02, Chapter 6.03; 2021-1119_DRAFT_SERAL_AquaticBiologicalAssessmentEvaluation; 2021-1119_DRAFT_SERAL_Botany_BIologicalEvaluation; 2021-1202_DRAFT_SERAL_Wildlife_BiologicalEvaulation
A network of land allocations, including California spotted owl and northern goshawk protected activity centers (PACs), **California spotted owl home range core areas**, forest carnivore den sites, and the southern Sierra fisher conservation area, with management direction specifically aimed at sustaining viable populations of at-risk species associated with old forest ecosystems well distributed across Sierra Nevada national forests;	31-32	11	Forestwide, All Forests	Old Forest Ecosystems and Associated Species	Strategy	NA	Yes, See DEIS Appendix B Table B.1	DEIS Appendix B; 2021-1202_DRAFT_SERAL_Wildlife_BiologicalEvaulation
Recovery Species Management (5-L): Management activities will comply with the Endangered Species Act.	NA	43	Forestwide	Fish and Wildlife	General Direction	NA	NA	DEIS Chapter 6.02
Pest Management (6-A): Ensure optimal pest management with respect to environmental concerns, biological effectiveness, and economic efficiency while achieving resource management objectives (FSM 2140).	NA	44	Forestwide	Forest Pests	General Direction	NA	NA	DEIS Chapter 2.03 A, E, and I.
Pest Management (6-A): An integrated pest management (IPM) approach will be followed during the planning and implementation of all activities that influence the vegetation. Under this IPM approach, a full range of pest management alternatives, including cultural, biological, mechanical and chemical methods, will be considered and analyzed on a site-specific, project-level basis. The treatment method(s) will be selected through environmental analysis which will consider the environmental effects, treatment efficacy and cost effectiveness of each alternative. Monitoring and enforcement plans to implement specific measures will be determined during this site and project¬ specific process. Pest detection, surveillance, evaluation, prevention, suppression and post-action evaluation are integral components of the integrated pest management approach (36 CFR 219.27(a) (3)).	NA	44	Forestwide	Forest Pests	Standard /Guideline		NA	DEIS Purpose and Need 1.04; DEIS Chapter 2.01 A.iii; C.iii; D.iii
Allotment Management (9-A): Livestock grazing, and all other uses are based on soil and vegetative resources. Maintaining these resources in satisfactory condition is the first priority of range management on this Forest. Any management practice that maintains or causes unsatisfactory soil or vegetative conditions in an area must be modified or if necessary, eliminated from that area. (36 CFR 219.20(b)) AUM increases are possible in allotments with satisfactory resource conditions. In many cases, improving resource conditions leads to increased forage production.	NA	47	Forestwide	Range	General Direction	NA	NA	

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Alternate Management (19-D): Protect Wild and Scenic River values of eligible river segments proposed for Near Natural Alternate Management (See Appendix E (EIS) Wild and Scenic Study).	NA	117	Near Natural	Special Areas	General Direction	NA	NA	DEIS Chapter 3.01 - Issue 5
Property Boundary Location and Marking (8-F): Inventory, rank and survey unsurveyed and unmarked property lines and corners.Solicit and participate in cooperative landline location and cost-share surveys with adjacent land owners.Limit investments in cadastral surveys of parcels identified for disposal or acquisition in the Forest landownership adjustment plan.Complete land-line surveys prior to conducting resource activities adjacent to private property.Recognize the sensitivity of private land-use concerns and the need for site-specific consideration of these concerns during the analysis of proposed projects adjacent to inholdings. Specific concerns should be analyzed when proposed activities may occur adjacent to developed subdivisions or areas developed for public recreation.Identify and promptly resolve all encroachments on National Forest lands.	NA	47	Forestwide	Lands	Standard /Guideline		NA	
Property Boundary Location and Marking (8-F): Survey, mark, post and maintain the property boundaries of the Forest. Maintain land title and survey records necessary to establish or reestablish property boundaries and corners.	NA	48	Forestwide	Lands	General Direction	NA	NA	
37. Work cooperatively with California and Nevada State agencies and individual counties (for example, Cooperative Weed Management Areas) to: (1) prevent the introduction and establishment of noxious weed infestations and (2) control existing infestations.	54	49	Forestwide, All Forests	Noxious Weeds Management	Standard /Guideline	37	NA	DEIS Purpose and Need 1.04; DEIS Chapter 2.01 A.iii; C.iii; D.iii
38. As part of project planning, conduct a noxious weed risk assessment to determine risks for weed spread (high, moderate, or low) associated with different types of proposed management activities. Refer to weed prevention practices in the Regional Noxious Weed Management Strategy to develop mitigation measures for high and moderate risk activities.	55	49	Forestwide, All Forests	Noxious Weeds Management	Standard /Guideline	38	NA	2021-1119_DRAFT_SERAL_InvasiveWeedRiskAssessment
39. When recommended in project-level noxious weed risk assessments, consider requiring off-road equipment and vehicles (both Forest Service and contracted) used for project implementation to be weed free. Refer to weed prevention practices in the Regional Noxious Weed Management Strategy.	55	49	Forestwide, All Forests	Noxious Weeds Management	Standard /Guideline	39	NA	DEIS Chapter 2.03
40. Minimize weed spread by incorporating weed prevention and control measures into ongoing management or maintenance activities that involve ground disturbance or the possibility of spreading weeds. Refer to weed prevention practices in the Regional Noxious Weed Management Strategy.	55	49	Forestwide, All Forests	Noxious Weeds Management	Standard /Guideline	40	NA	DEIS Chapter 2.03
41. Conduct follow-up inspections of ground disturbing activities to ensure adherence to the Regional Noxious Weed Management Strategy	55	49	Forestwide, All Forests	Noxious Weeds Management	Standard /Guideline	41	NA	DEIS Chapter 2.03

Existing Plan Direction	SNFPA (page)	2017 Forest Plan Direction (page)	Where Existing Plan Component Applies	Resource Area	Existing Plan Component	S&G #	Proposed Project Specific Amendment?	How is SERAL Compliant?
46. Consult with American Indians to determine priority areas for weed prevention and control where traditional gathering areas are threatened by weed infestations.	55	49	Forestwide, All Forests	Noxious Weeds Management	Standard /Guideline	46	NA	DEIS Chapter 6.06
48. As outlined in the Regional Noxious Weed Management Strategy, when new, small weed infestations are detected, emphasize eradication of these infestations while providing for the safety of field personnel.	55	49	Forestwide, All Forests	Noxious Weeds Management	Standard /Guideline	48	NA	DEIS Purpose and Need 1.04; DEIS Chapter 2.01 A.iii; C.iii; D.iii
49. Monitor known weed infestations, as appropriate, to determine changes in weed population density and rate of spread.	55	49	Forestwide, All Forests	Noxious Weeds Management	Standard /Guideline	49	NA	DEIS Purpose and Need 1.04; DEIS Chapter 2.01 A.iii; C.iii; D.iii
49. Routinely monitor noxious weed control projects to determine success and to evaluate the need for follow-up treatments or different control methods.	55	49	Forestwide, All Forests	Noxious Weeds Management	Standard /Guideline	49	NA	DEIS Purpose and Need 1.04; DEIS Chapter 2.01 A.iii; C.iii; D.iii
Visual Resources: Emphasize the scenic and recreation values of major trail, road and highway corridors, developed recreation sites, major rivers and lakes, and other areas of concentrated recreation use.	NA	150	Scenic Corridor	Visual Resources	Standard /Guideline	Visual Resources	NA	VQO Objectives will be identified for proposed treatment areas prior to implementation and prescriptions will include specific mitigation measures or specifications to ensure the treatments do not alter the landscape beyond the adopted VQO.
Sensitive Plants Interim and Recovery Management (12-A): Where projects may jeopardize a sensitive plant species perform a Biological Evaluation, botanical investigation and develop management guidelines, as necessary, for the species involved. Prepare species management guidelines for all sensitive species in order of the degree of risk posed by management activities. Conduct surveys and monitoring necessary to detect potentially damaging disturbances, changes in known populations and locations of new populations.	NA	56	Forestwide	Sensitive Plants	Standard /Guideline		NA	DEIS Chapter 2.03; 2021-1119_DRAFT_SERAL_Botany_BIologicalEvaluation
Sensitive Plants Interim and Recovery Management (12-A): Protect sensitive plants from activities which might cause them to become Federally listed as Threatened or Endangered. Identify populations of sensitive plants which occur in areas planned for timber sales or other projects. Modify planned projects to avoid or minimize adverse impacts to sensitive plants.	NA	56	Forestwide	Sensitive Plants	Standard /Guideline		NA	DEIS Chapter 2.03; DEIS Chapter 6.03; 2021-1119_DRAFT_SERAL_Botany_BIologicalEvaluation
Sensitive Plants Interim and Recovery Management (12-A): Provide for protection and habitat needs of sensitive plants, so that Forest activities will not jeopardize their continued existence.	NA	56	Forestwide	Sensitive Plants	General Direction	NA	NA	DEIS Chapter 2.03; DEIS Chapter 6.03; 2021-1119_DRAFT_SERAL_Botany_BIologicalEvaluation
Sensitive Plant Surveys (12-A): Conduct field surveys for TEPS plant species early enough in the project planning process that the project can be designed to conserve or enhance TEPS plants and their habitat. Conduct surveys according to procedures outlined in the Forest Service Handbook (FSH 2609.25.11). If additional field surveys are to be conducted as part of project implementation, survey results must be documented in the project file.	NA	57	Forestwide	Sensitive Plants	General Direction	NA	NA	DEIS Chapter 2.03; DEIS Chapter 6.03; 2021-1119_DRAFT_SERAL_Botany_BIologicalEvaluation

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Soil Support Services (13-A): Forest projects and activities shall be conducted to maintain or improve soil productivity. (36 CFR 219.27(a)(1), 219.27(a)(2), 219.27(b)(5), 219.27(f)). Forest Soil Quality Standards and Best Management Practices will be implemented.	NA	57	Forestwide	Soils	General Direction	NA	NA	DEIS Chapter 6.07 and 6.08; 2021-1110_DRAFT_SERAL_SoilsReport
Fuelwood and Miscellaneous Forest Products (15-M): Fuelwood and other forest products will be made available through sale, administrative use, and free use where such uses do not conflict with other resource objectives.	NA	161	Developed Recreation Sites	Timber	Standard /Guideline	Fuelwood and Miscellaneous Forest Products (15-M)	NA	DEIS Purpose and Need 1.02; DEIS Chapter 2 Ai; Ci; and Di.
Soil Support Services (13-A): Soil properties or conditions should not be altered to the degree that would result in a 15 percent or more reduction in the inherent' productivity potential of the soil.Soil Cover: Manage soil cover to avoid a High Erosion Hazard condition, as defined by the R-5 Erosion Hazard Rating method. Soil cover should be in place prior to seasonal precipitation.Soil Porosity: Maintain soil porosity above 90 percent of its natural condition on at least 85 percent of a treatment unit or activity area (90 percent where aerial logging systems are used). Plantable landings and skid trails will be tilled, if compacted. Standard does not apply to system roads, administrative sites, or livestock driveways and bedding grounds.Surface Organic Matter: Provide an organic mulch on approximately 50% of the soil surface after site preparation. Provide for a mix of duff, small woody debris less than 3 inches in diameter, and large woody debris, mostly decaying and unmerchantable logs (minimum 5 logs per acre)., Desired logs are about 20 inches in diameter, about 10 feet long, and represent a range of decomposition classes as defined in the Soil Management Handbook, FSH 2509.18, Chapter 2. Standard may be waived in fuel break areas where fuel loading would be a safety hazard.Soil Organic Matter: Maintain topsoil organic matter to at least 85 percent of its original total in the top 12 inches. Applies to areas dedicated to growing vegetation, i.e., timber and forage production, vegetation that contributes to the quality of the recreational experience, and for watershed protection. Stockpile topsoil to rehabilitate disturbed areas such as borrow pits, mined areas, material storage sites, etc.Best Management Practices (BMPs): Implement BMPs to mitigate the environmental impacts of erosion, compaction, and soil displacement. Require special soil mitigation to use ground skidding equipment on slopes steeper than 35%. Require special soil mitigation to use ground skidding equipment on soils that erode, displace, or compact easily. Where actual or potential slope instability is identified, specific mitigating measures will be developed by an interdisciplinary team including a geologist.	NA	57	Forestwide	Soils	Standard /Guideline		NA	DEIS Chapter 6.07 and 6.08; 2021-1110_DRAFT_SERAL_SoilsReport

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Fuelwood and Miscellaneous Forest Products (15-M): Fuelwood and other forest products will be made available through sale, administrative use, and personal use where such uses do not conflict with other resource objectives.	NA	127	Special Interest Areas	Timber	Standard /Guideline	Fuelwood and Miscellaneous Forest Products (15-M)	NA	DEIS Purpose and Need 1.02; DEIS Chapter 2 Ai; Ci; and Di.
Fuelwood and Miscellaneous Forest Products (15-M): Fuelwood and other forest products will be made available through sale, administrative use, and personal use where such uses do not conflict with other resource objectives.	NA	153	Scenic Corridor	Timber	Standard /Guideline	Fuelwood and Miscellaneous Forest Products (15-M)	NA	DEIS Purpose and Need 1.02; DEIS Chapter 2 Ai; Ci; and Di.
Soil Hydrologic Functions Soil Environmental Health (13-C): Use Region 5 Cumulative Watershed Effects Analysis (Chapter 20, R-5 FSH 2509.22) to determine the extent of area needed to meet the soil hydrologic function threshold defined above.	NA	57	Forestwide	Soils	Standard /Guideline		NA	2021-1118_DRAFT_SERAL Watershed Report
Fuelwood and Miscellaneous Forest Products (15-M): Fuelwood and other forest products will be made available through sale, administrative use, and personal use where such uses do not conflict with other resource objectives.	NA	178	Developed (Non-Recreation) Sites	Timber	Standard /Guideline	Fuelwood and Miscellaneous Forest Products (15-M)	NA	DEIS Purpose and Need 1.02; DEIS Chapter 2 Ai; Ci; and Di.
Soil Hydrologic Functions Soil Environmental Health (13-C): Design and implement management practices that maintain or improve soil hydrologic function and soil environmental health.	NA	57	Forestwide	Soils	General Direction	NA	NA	DEIS Chapter 6.07 and 6.08; 2021-1110_DRAFT_SERAL_SoilsReport
Soil Hydrologic Functions Soil Environmental Health (13-C): Soil Moisture Regime is unchanged where productivity or potential natural plant community are dependent upon specific soil drainage classes. Soil Hydrologic Function: Infiltration and permeability are not reduced to ratings of 6 or 8 as defined in Region 5 Erosion Hazard Rating System (Chapter 50, R-5 FSH 2509.22). Soil Environmental Health: Soil reaction class, buffering or exchange capacities, or biological populations are not altered to the degree that significantly effects soil productivity, soil hydrological function, or the health of humans and animals.	NA	57	Forestwide	Soils	Standard /Guideline		NA	DEIS Chapter 6.07 and 6.08; 2021-1110_DRAFT_SERAL_SoilsReport
Fuelwood and Miscellaneous Forest Products (15-M): Permit or make available fuelwood and other forest products on all available lands where Special Interest Area values can be protected.	NA	127	Special Interest Areas	Timber	General Direction	NA	NA	DEIS Purpose and Need 1.02; DEIS Chapter 2 Ai; Ci; and Di.

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Soil Resource Improvement (Planning, Treatment and Maintenance) (13-B): Identify and evaluate the need for soil fertilization and other soil improvement techniques in areas where the soil is likely to respond to treatment. (36 CFR 219.27(b)(2). Treat areas that are found to be cost effective and that will respond favorably. Productivity lost as a result of soil erosion, soil compaction, loss of organic matter, or soil displacement, will be restored as practical to meet Soil Quality Standards. Include these areas in the Forest WINS inventory (Watershed Improvement Needs Survey), and in project K-V plans for restoration and improvement.	NA	57	Forestwide	Soils	Standard /Guideline		NA	DEIS Chapter 6.07 and 6.08; 2021-1110_DRAFT_SERAL_SoilsReport
Soil Resource Improvement (Planning, Treatment and Maintenance) (13-B): Improve the inherent productivity of the soil or return degraded soils to the productivity consistent with Regional Soil Quality Standards and resource objectives. (36 CFR 219.27 (f))	NA	57	Forestwide	Soils	General Direction	NA	NA	DEIS Chapter 6.07 and 6.08; 2021-1110_DRAFT_SERAL_SoilsReport
Fuelwood and Miscellaneous Forest Products (15-M): Permit or make available fuelwood and other forest products.	NA	178	Developed (Non-Recreation) Sites	Timber	General Direction	NA	NA	DEIS Purpose and Need 1.02; DEIS Chapter 2 Ai; Ci; and Di.
Soil Hydrologic Functions Soil Environmental Health (13-C): Develop local threshold values and submit to Regional Forester for standardization among forests.	NA	58	Forestwide	Soils	Standard /Guideline		NA	DEIS Chapter 6.07 and 6.08; 2021-1110_DRAFT_SERAL_SoilsReport
Road Construction and Reconstruction (16-A): Geometric standards and location will be planned to provide acceptable levels of service and traffic safety and meet resource management needs. Traffic Service Level C (see Appendix G of the Plan for descriptions of traffic service levels) or higher should be used where a significant mix of public and commercial traffic is planned. Alignment, width and passing facilities should provide appropriate speed, traffic safety and flow on roads with high traffic volumes or public traffic. Traffic Service Level D may be used on roads where use will be primarily commercial and traffic volumes will be low. On Traffic Service Level D roads limited turnouts and sight distance may be acceptable in combination with traffic management for safety.	NA	58	Forestwide	Transportation and Facilities	Standard /Guideline		NA	Standard implementation Practice
Road Construction and Reconstruction (16-A): Location, design and construction standards will protect soil, watersheds, fisheries and other resources.	NA	58	Forestwide	Transportation and Facilities	Standard /Guideline		NA	Standard implementation Practice
Road Construction and Reconstruction (16-A): Surfacing will be planned with consideration for the total cost of transportation, including construction, operation and maintenance costs, while meeting resource management objectives. Roads with weak subgrades which are susceptible to rutting may require surface stabilization. Traffic Service Level will be considered when public use justifies smooth dust-free surfaces. Roads with higher traffic volumes, often arterial and collector roads, may need more stable and higher-speed surface types. Economic analysis and road management objectives will be used to determine improvement needs.	NA	58	Forestwide	Transportation and Facilities	Standard /Guideline		NA	Standard implementation Practice

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Road Construction and Reconstruction (16-A): Conduct an integrated interdisciplinary transportation analysis, following the national roads analysis procedures, as part of landscape analysis. Complete unclassified road inventories for each national forest within 10 years.	NA	58	Forestwide	Transportation and Facilities	Standard /Guideline		NA	Standard implementation Practice
Road Construction and Reconstruction (16-A): Construct and reconstruct Forest roads including long-term and temporary roads.	NA	58	Forestwide	Transportation and Facilities	General Direction	NA	NA	Standard implementation Practice
Geology and Minerals: In areas identified as susceptible to slope instability, analyze risks of management activities so as to avoid initiation or acceleration of slope movement and to protect human safety and Forest resources.	NA	3	Forestwide	Geology and Minerals	Goal	NA	NA	DEIS Chapter 6.07 and 6.08; 2021-1110_DRAFT_SERAL_SoilsReport
Road Construction, Reconstruction, and Relocation (16-A): To protect watershed resources, meet the following standards for road construction, road reconstruction, and road relocation: (1) design new stream crossings and replacement stream crossings for at least the 100-year flood, including bedload and debris; (2) design stream crossings to minimize the diversion of streamflow out of the channel and down the road in the event of a crossing failure; (3) design stream crossings to minimize disruption of natural hydrologic flow paths, including minimizing diversion of streamflow and interception of surface and subsurface water; (4) avoid wetlands or minimize effects to natural flow patterns in wetlands; and (5) avoid road construction in meadows.	NA	58	Forestwide	Transportation and Facilities	Standard /Guideline		NA	Standard implementation Practice
70. To protect watershed resources, meet the following standards for road construction, road reconstruction, and road relocation: (1) design new stream crossings and replacement stream crossings for at least the 100-year flood, including bedload and debris; (2) design stream crossings to minimize the diversion of streamflow out of the channel and down the road in the event of a crossing failure; (3) design stream crossings to minimize disruption of natural hydrologic flow paths, including minimizing diversion of streamflow and interception of surface and subsurface water; (4) avoid wetlands or minimize effects to natural flow patterns in wetlands; and (5) avoid road construction in meadows.	59	59	Forestwide, All Forests	Road Construction, Reconstruction, and Relocation	Standard /Guideline	70	NA	Standard implementation Practice
Visual Quality Objectives (VQOs) (17-B): Manage areas to provide a characteristic natural appearing landscape commensurate with the description stated for each VQO practice. Resource management activities will be guided by the appropriate Landscape Management handbooks and Forest Landscape Architects' recommendations. The adopted VQOs are displayed on Map 8, Appendix I. VQOs are desired ratings outlined under the Forest Service system of Visual Resource Management. VQ0s apply Forestwide; every acre of National Forest land treated by this Forest Plan fits into one of the VQO classes listed below (No Maximum Modification):	NA	59	Forestwide	Visual Resources	General Direction	NA	NA	VQO Objectives will be identified for proposed treatment areas prior to implementation and prescriptions will include specific mitigation measures or specifications to ensure the treatments do not alter the landscape beyond the adopted VQO.

Existing Plan Direction	SNFPA (page)	2017 Forest Plan Direction (page)	Where Existing Plan Component Applies	Resource Area	Existing Plan Component	S&G #	Proposed Project Specific Amendment?	How is SERAL Compliant?
Visual Quality Objectives (VQOs) (17-B): Meet the adopted VQO for all landscape altering projects. VQOs will be compatible with the applicable ROS classes. Maintain visual quality by including mitigation measures for all activities that have the potential to alter the landscape beyond the adopted Visual Quality Objective. Specific facility and vegetative treatment within major highway view sheds will be guided by approved View shed Plans.	NA	59	Forestwide	Visual Resources	Standard /Guideline		NA	VQO Objectives will be identified for proposed treatment areas prior to implementation and prescriptions will include specific mitigation measures or specifications to ensure the treatments do not alter the landscape beyond the adopted VQO.
Intermediate Cutting - Sanitation and Salvage (15-E): Design cutting methods to obtain specific management objectives (36 CFR 219.15, 219.27(b))	NA	151	Scenic Corridor	Timber	General Direction	NA	NA	
Intermediate Cutting - Sanitation and Salvage (15-E): Even-Aged Systems are further described in FSM 2471.21, R5 Supplements and the Forest Management Practices.	NA	151	Scenic Corridor	Timber	Standard /Guideline	Intermediate Cutting - Sanitation and Salvage (15-E)	NA	
VQO Partial Retention: Foreground Distance Zone: Where safe, maintain old-growth specimen character trees in the immediate foreground distance zone. Visual diversity shall relate to the concept of a "natural appearing forested landscape" in a sequence and continuity of a view in the foreground. Special cutting permitted. Impacts of management activities in highly visible foreground areas will be reduced through special treatments. Middleground and Background Zones: Visual diversity shall relate to the concept of a "natural appearing forested landscape" in a sequence and continuity of a view in the middleground or background.	NA	59	Forestwide	Visual Resources	Standard /Guideline		NA	VQO Objectives will be identified for proposed treatment areas prior to implementation and prescriptions will include specific mitigation measures or specifications to ensure the treatments do not alter the landscape beyond the adopted VQO.
VQO Partial Retention: Provide a natural appearing landscape where changes are evident but are subordinate to the surrounding characteristic landscape.	NA	59	Forestwide	Visual Resources	General Direction	NA	NA	VQO Objectives will be identified for proposed treatment areas prior to implementation and prescriptions will include specific mitigation measures or specifications to ensure the treatments do not alter the landscape beyond the adopted VQO.
VQO Preservation: Allow ecological changes only, except for trails.	NA	59	Forestwide	Visual Resources	General Direction	NA	NA	VQO Objectives will be identified for proposed treatment areas prior to implementation and prescriptions will include specific mitigation measures or specifications to ensure the treatments do not alter the landscape beyond the adopted VQO.
VQO Preservation: Design and locate trails, trail bridges, and other trail related improvements as unobtrusive as possible in the landscape.	NA	59	Forestwide	Visual Resources	Standard /Guideline		NA	VQO Objectives will be identified for proposed treatment areas prior to implementation and prescriptions will include specific mitigation measures or specifications to ensure the treatments do not alter the landscape beyond the adopted VQO.

Existing Plan Direction	SNFPA (page)	2017 Forest Plan Direction (page)	Where Existing Plan Component Applies	Resource Area	Existing Plan Component	S&G #	Proposed Project Specific Amendment?	How is SERAL Compliant?
VQO Retention: Foreground Distance Zone: Impacts of management activities in highly visible foreground areas will be reduced through special treatments. Middleground and Background Zones: Visual diversity shall relate to the concept of a "natural appearing forested landscape" in a sequence and continuity of a view in the middleground or background. Special cutting may be applied.	NA	59	Forestwide	Visual Resources	Standard /Guideline		NA	VQO Objectives will be identified for proposed treatment areas prior to implementation and prescriptions will include specific mitigation measures or specifications to ensure the treatments do not alter the landscape beyond the adopted VQO.
Water Quality Management (18-A): Comply with all applicable Federal and State water quality standards. Prevent or minimize as much as possible any water quality impacts which may be caused by Forest management activities. Achieve the goals for preventing or minimizing water pollution as stated in the Federal Clean Water Act. Implement water quality BMPs as specified in the Management Agency Agreement with the California Water Resources Control Board for protection of non-point water pollution sources. Comply with applicable provisions of the Water Quality Control Plan (Basin Plan) of the California Central Valley Regional Water Control Board.	NA	60	Forestwide	Water	General Direction	NA	NA	2021-1118_DRAFT_SERAL Watershed Report
Water Quality Management (18-A): Implement water quality BMPs as needed for all Forest management activities. BMPs are a system of nearly 100 practices designed to minimize or prevent water pollution from Forest management activities. They cover such activities as timber harvest, road construction, mining, recreation, fire management and grazing. See Appendix K of the EIS for a discussion and listing of the water quality BMPs. Monitor the implementation and effectiveness of BMPs in selected areas to determine if they are being carried out and if they are accomplishing their objectives. Analyze cumulative watershed effects (CWE) on all applicable proposed Forest management activities to determine off-site effects on the beneficial uses of water.	NA	60	Forestwide	Water	Standard /Guideline		NA	2021-1118_DRAFT_SERAL Watershed Report
Water Quantity Management (18-B): Follow all Federal and State regulatory practices required in responding to proposals to develop the water resource. Keep current all water rights management for beneficial uses of water on the Forest.	NA	60	Forestwide	Water	Standard /Guideline		NA	2021-1118_DRAFT_SERAL Watershed Report
Water Quantity Management (18-B): Support water yield increase where economically feasible and environ- mentally acceptable. Follow FSM policy for proposed weather modification projects, especially in designated Wilderness. Provide input to proposals for water supply and hydroelectricity which may alter fluvial systems by construction of facilities such as dams, diversions and tunnels. Such input will support valid proposals provided they are consistent with sound watershed resource protection measures. Support all valid uses of water from the National Forest. Ensure that such uses are carried out commensurate with Federal and State laws and regulations.	NA	60	Forestwide	Water	General Direction	NA	NA	2021-1118_DRAFT_SERAL Watershed Report

Existing Plan Direction	SNFPA (page)	2017 Forest Plan Direction (page)	Where Existing Plan Component Applies	Resource Area	Existing Plan Component	S&G #	Proposed Project Specific Amendment?	How is SERAL Compliant?
VQO Retention: Provide a natural appearing landscape where changes are not readily evident.	NA	61	Forestwide	Visual Resources	General Direction	NA	NA	VQO Objectives will be identified for proposed treatment areas prior to implementation and prescriptions will include specific mitigation measures or specifications to ensure the treatments do not alter the landscape beyond the adopted VQO.
Watershed Maintenance and Improvement (18-D): Conduct periodic watershed surveys to determine the current condition of the water resource, identify potential WIN projects and assess the potential for cumulative watershed effects. Conduct disaster surveys as needed and prescribe applicable emergency rehabilitation treatments. Such disasters include wildfires, floods, earthquakes and damage from high winds and avalanches.	NA	61	Forestwide	Water	Standard /Guideline		NA	2021-1118_DRAFT_SERAL Watershed Report
Watershed Maintenance and Improvement (18-D): Implement the following watershed recovery practices following major wildfires, except in Wilderness in most cases: 1. Restore ground cover as soon as possible when necessary to reduce flood flows to protect life and property, to maintain soil productivity and/or to minimize stream sedimentation and cumulative watershed effects. 2. Conduct reforestation activities in a manner which reduces the potential for cumulative watershed effects, such as dispersing site preparation adequately over time and space and/or using techniques which minimize land disturbance.	NA	61	Forestwide	Water	Standard /Guideline		NA	2021-1118_DRAFT_SERAL Watershed Report
Watershed Maintenance and Improvement (18-D): Maintain or improve watershed condition to provide stewardship of water and soil resources.	NA	61	Forestwide	Water	General Direction	NA	NA	2021-1118_DRAFT_SERAL Watershed Report
Watershed Maintenance and Improvement (18-D): Survey Forest watersheds and restore degraded areas to improve watershed condition. Establish a Forestwide water resources inventory (WRI) to determine needs for maintenance and improvement of the water resource. The WRI is a comprehensive data base of water resource information for each Forest watershed. It is used to determine watershed condition to (1) protect or enhance the water resource when planning forest management activities and (2) to determine watershed improvement needs (WIN).	NA	61	Forestwide	Water	General Direction	NA	NA	2021-1118_DRAFT_SERAL Watershed Report
Designated and proposed **Wild and Scenic Rivers**, along with immediate environments, will be managed to preserve their free flowing condition and protect their outstandingly remarkable values. To the extent of Forest Service authority, no development of hydroelectric power facilities or other water resource developments would be permitted. Opportunities for public recreation and other resource uses are based on the classification of each identified river segment.	NA	107	Wild and Scenic Rivers and Proposed Wild and Scenic Rivers	Wild and Scenic Rivers	Management Emphasis	NA	NA	DEIS Chapter 3.01 - Issue 5

Existing Plan Direction	SNFPA (page)	2017 Forest Plan Direction (page)	Where Existing Plan Component Applies	Resource Area	Existing Plan Component	S&G #	Proposed Project Specific Amendment?	How is SERAL Compliant?
Direction provides for management of recommended segments in accordance with the **Wild and Scenic Rivers** Act of 1968 as guided by FSH 1909.12, Chapter 80, and the 1982 Guidelines for River Management (USDA/USDI). Proposed Wild and Scenic Rivers within Wilderness will be managed under dual designation. No timber harvest is scheduled; however, a wide range of resource activities are permitted depending upon the proposed classification of Wild, Scenic or Recreational.	NA	107	Wild and Scenic Rivers and Proposed Wild and Scenic Rivers	Wild and Scenic Rivers	Management Emphasis	NA	NA	DEIS Chapter 3.01 - Issue 5
Wild and Scenic Rivers and Proposed Wild and Scenic Rivers: Management emphasis for these areas is to manage selected river corridors to preserve their notable values or features as part of, or for eventual inclusion in, the National Wild and Scenic River System.	NA	107	Wild and Scenic Rivers and Proposed Wild and Scenic Rivers	Wild and Scenic Rivers	Management Emphasis	NA	NA	DEIS Chapter 3.01 - Issue 5
Cultural Resources: Inventory, evaluate, enhance and manage cultural resources to prevent loss of, or damage to cultural values; to integrate significant resources into multiple use management; to gain scientific knowledge and management data about them; and to interpret for public benefit and appreciation.	NA	3	Forestwide	Cultural Resources	Goal	NA	NA	DEIS Chapter 6.06
Maintain **air quality** that complies with all applicable regulations. Carry out forest management activities in a manner consistent and compatible with the attainment of State and Federal air quality objectives.	NA	3	Forestwide	Air Quality	Goal	NA	NA	Standard implementation Practice
Sensitive Plants: Manage sensitive plants to ensure continued population viability and prevent them from becoming federally listed as Threatened or Endangered.	NA	4	Forestwide	Sensitive Plants	Goal	NA	NA	2021-1119_DRAFT_SERAL_Botany_BIologicalEvaluation
Community Stability: Manage the Forest in an economically efficient and cost-effective manner while responding to economic and social needs of the public and local communities.	NA	3	Forestwide	Community Stability	Goal	NA	NA	DEIS Purpose and Need 1.02; DEIS Chapter 3.01 - Issue 4.
Economic: Manage the Forest in an economically efficient and cost-effective manner while responding to economic and social needs of the public and local communities.	NA	3	Forestwide	Economic	Goal	NA	NA	DEIS Purpose and Need 1.02; DEIS Chapter 3.01 - Issue 4.
Timber: Manage the timber resource to provide commercial sawtimber, public fuelwood, and miscellaneous wood products, while considering environmental factors and other resource values.	NA	4	Forestwide	Timber	Goal	NA	NA	DEIS Purpose and Need 1.02; DEIS Chapter 3.01 - Issue 4.
Manage **Wild and Scenic Rivers** and their immediate environments to preserve their free-flowing condition and to protect their outstandingly remarkable values. Provide opportunities for public recreation and other resources based on the classification of each river segment.	NA	5	Forestwide	Wild and Scenic Rivers	Goal	NA	NA	DEIS Chapter 3.01 - Issue 5
Special Interest Areas: Management emphasis for these areas is to protect and manage unique geological, scenic, historical, archaeological, botanical and memorial features, to make educational opportunities available and preserve the integrity of the special interest feature for which the areas were established. No timber harvests are scheduled; however, a wide range of resource activities is permitted, provided the unique features of each area are protected.	NA	123	Special Interest Areas	Special Areas	Management Emphasis	NA	NA	

Existing Plan Direction	SNFPA (page)	2017 Forest Plan Direction (page)	Where Existing Plan Component Applies	Resource Area	Existing Plan Component	S&G #	Proposed Project Specific Amendment?	How is SERAL Compliant?
Meet adopted Visual Quality Objectives (VQOs) on all projects. Maintain high visual quality in areas of concentrated public use and in areas seen from major travel routes. Allow management activities in certain areas to dominate the surrounding characteristic landscape, but they shall borrow from natural forms and appear as natural occurrences when viewed from background distances. Consider private land concerns during the evaluation of proposed management activities adjacent to privately developed subdivisions and recreation areas. Particular attention will be given to visual quality in the foreground view areas of these private developments as well as any other values relating to their attendant use and enjoyment of the National Forest.	NA	4-5	Forestwide	Visual Resources	Goal	NA	NA	
Road Construction and Reconstruction (16-A): In Scenic and Recreational Rivers, construct and reconstruct roads to standards which meet resource management and resource protection needs, while protecting Wild and Scenic River values.	NA	112	Wild and Scenic Rivers and Proposed Wild and Scenic Rivers	Transportation and Facilities	General Direction	NA	NA	DEIS Chapter 2.03 Item E.6
Road Construction and Reconstruction (16-A): Road construction or reconstruction is not allowed Wild Rivers. Road construction or reconstruction in Scenic Rivers will be accomplished within the criteria for Scenic Rivers.	NA	112	Wild and Scenic Rivers and Proposed Wild and Scenic Rivers	Transportation and Facilities	Standard /Guideline		NA	DEIS Chapter 2.03 Item E.6
Special Cutting - Other (15-I): Design special cutting methods to obtain specific Wild and Scenic River management objectives (36 CFR 219.15, 219.27(b)).	NA	112	Wild and Scenic Rivers and Proposed Wild and Scenic Rivers	Timber	General Direction	NA	NA	DEIS Chapter 3.01 - Issue 5
Special Cutting - Other (15-I): Special cutting methods will be used to improve the quality of Wild and Scenic River resources.	NA	112	Wild and Scenic Rivers and Proposed Wild and Scenic Rivers	Timber	Standard /Guideline		NA	DEIS Chapter 3.01 - Issue 5
VQO Preservation (17-B-1): Manage to a VQO of Preservation. This is the adopted VQO level for all Wild Rivers within Wilderness as shown on the VQO Map	NA	112	Wild and Scenic Rivers and Proposed Wild and Scenic Rivers	Visual Resources	Standard /Guideline		NA	DEIS Chapter 3.01 - Issue 5
VQO Preservation (17-B-1): Provide a high-quality visual setting where changes are unnoticed both within the Management Area and from the rivers.	NA	112	Wild and Scenic Rivers and Proposed Wild and Scenic Rivers	Visual Resources	General Direction	NA	NA	DEIS Chapter 3.01 - Issue 5
VQO Retention (17-B-2): Manage to a VQO of Retention. This is the adopted VQO level for Wild, Scenic and Recreational Rivers which are outside of Wilderness, as shown on the VQO Map. Portions of some Scenic and Recreational Rivers exist in a condition equal to Partial Retention. This is an acceptable interim level, which will be upgraded to Retention over time through natural process and/or rehabilitation.	NA	112	Wild and Scenic Rivers and Proposed Wild and Scenic Rivers	Visual Resources	Standard /Guideline		NA	DEIS Chapter 3.01 - Issue 5
VQO Retention (17-B-2): Provide a high-quality visual setting where changes are not readily evident.	NA	112	Wild and Scenic Rivers and Proposed Wild and Scenic Rivers	Visual Resources	General Direction	NA	NA	DEIS Chapter 3.01 - Issue 5

Existing Plan Direction	SNFPA (page)	2017 Forest Plan Direction (page)	Where Existing Plan Component Applies	Resource Area	Existing Plan Component	S&G #	Proposed Project Specific Amendment?	How is SERAL Compliant?
Private property holder and permittee needs will be taken into consideration in all planning and management activities occurring adjacent to private lands. Effort will be made to communicate information about proposed Forest Service projects, during the initial stages of project development in order to be responsive to public issues and concerns. Regular communication will be maintained with local County Planning Departments to ensure long-term coordination and understanding.	NA	4	Forestwide	Urban Interface	Goal	NA	NA	DEIS Chapter 5.05
Proposed Wild and Scenic River Management (19-C): Manage the same as designated Wild and Scenic Rivers.	NA	113	Wild and Scenic Rivers and Proposed Wild and Scenic Rivers	Wild and Scenic Rivers	Standard /Guideline		NA	DEIS Chapter 3.01 - Issue 5
Proposed Wild and Scenic River Management (19-C): Protect and enhance the Wild and Scenic River characteristics.	NA	113	Wild and Scenic Rivers and Proposed Wild and Scenic Rivers	Wild and Scenic Rivers	General Direction	NA	NA	DEIS Chapter 3.01 - Issue 5
Wild and Scenic River Management (19-B): Manage according to the requirements of the Wild and Scenic Rivers Act of 1968, as amended and according to the guidance provided by FSH 1909.12, Chapter 80, and the 1982 Final Revised Guidelines for River Management (USDA/ USDI). Wild and Scenic Rivers, along with their immediate environments, will be managed to preserve their free-flowing condition and to protect and enhance their Wild and Scenic River values. Implement Limits of Acceptable Change (LAC) and limit use as necessary.	NA	113	Wild and Scenic Rivers and Proposed Wild and Scenic Rivers	Wild and Scenic Rivers	General Direction	NA	NA	DEIS Chapter 3.01 - Issue 5
Provide habitat for viable populations of all native and desired non-native wildlife, fish and plants. Maintain and improve habitat for Threatened and Endangered species and give special attention to sensitive species to see that they do not become Federally listed as Threatened or Endangered.	NA	3	Forestwide	Fish and Wildlife	Goal	NA	NA	DEIS Chapter 6.02; 6.03
Near Natural: Emphasis is placed on providing a natural appearing landscape in a non-motorized setting. Public motorized use is not normally allowed, and no timber harvest is scheduled. Wildlife habitat management, watershed protection, dispersed non-motorized recreation, livestock grazing, and minerals uses are allowed. The area is characterized by a high-quality visual setting where changes are rarely evident. Land altering practices are limited in scope and duration. It meets the Forest Service criteria for the Recreation Opportunity Spectrum class of Semi-primitive Non-motorized. Special timber harvest methods to enhance recreation or to salvage losses may be employed.	NA	115	Near Natural	Recreation	Management Emphasis	NA	NA	There are just over 7,000 acres of Near Natural areas within the SERAL project area. Special cutting methods may be used to salvage mortality or improve the quality of resources other than "timber". Proposed treatment in Near Natural areas will be identified and constrained to ensure the treatment objectives are clear and the natural nature of these areas are preserved.

Existing Plan Direction	SNFPA (page)	2017 Forest Plan Direction (page)	Where Existing Plan Component Applies	Resource Area	Existing Plan Component	S&G #	Proposed Project Specific Amendment?	How is SERAL Compliant?
Structural Habitat Improvement and Maintenance (5-K): Conduct activities where necessary in the recovery of Threatened, Endangered, or Sensitive species in a way which protects natural conditions.	NA	116	Near Natural	Fish and Wildlife	Standard /Guideline		NA	There are just over 7,000 acres of Near Natural areas within the SERAL project area. Alternative 1 proposed 1,106 acres of mechanical treatments. (FT-Harvest 800; FT_Other 109; Fuelbreak 185; MechFuels 11.3) Special cutting methods may be used to salvage mortality or improve the quality of resources other than "timber". Proposed treatment in Near Natural areas will be identified and constrained to ensure the treatment objectives are clear and the natural nature of these areas are preserved.
Structural Habitat Improvement and Maintenance (5-K): Conduct general fish and wildlife habitat management activities in a way that supports the overall objectives for Near Natural Areas.	NA	116	Near Natural	Fish and Wildlife	General Direction	NA	NA	There are just over 7,000 acres of Near Natural areas within the SERAL project area. Alternative 1 proposed 1,106 acres of mechanical treatments. (FT-Harvest 800; FT_Other 109; Fuelbreak 185; MechFuels 11.3) Special cutting methods may be used to salvage mortality or improve the quality of resources other than "timber". Proposed treatment in Near Natural areas will be identified and constrained to ensure the treatment objectives are clear and the natural nature of these areas are preserved.
Fuelwood and Miscellaneous Forest Products (15-M): Fuelwood and other forest products will be made available through sale, administrative use, and personal use where such uses do not conflict with other resource objectives.	NA	117	Near Natural	Timber	Standard /Guideline	Fuelwood and Miscellaneous Forest Products (15-M)	NA	DEIS Purpose and Need 1.02; DEIS Chapter 3.01 - Issue 4.
Fuelwood and Miscellaneous Forest Products (15-M): Permit or make available fuelwood and other forest products.	NA	117	Near Natural	Timber	General Direction	NA	NA	DEIS Purpose and Need 1.02; DEIS Chapter 3.01 - Issue 4.
Road Construction and Reconstruction (16-A): Construct and reconstruct roads as needed for management activities meeting Near Natural management objectives.	NA	117	Near Natural	Transportation and Facilities	General Direction	NA	NA	Standard implementation Practice
Road Construction and Reconstruction (16-A): Road construction will be designed to meet Near Natural management objectives. Location, design and construction standards will protect soil, watershed, fisheries, and other resource values.	NA	117	Near Natural	Transportation and Facilities	Standard /Guideline		NA	Standard implementation Practice
Special Cutting - Other (15-I): Design special cutting methods to obtain specific Near Natural management objectives. (36 CFR 219.15, 219.27(b))	NA	117	Near Natural	Timber	General Direction	NA	NA	Standard implementation Practice
Special Cutting - Other (15-I): Special cutting methods will be used to salvage mortality or improve the quality of resources other than timber.	NA	117	Near Natural	Timber	Standard /Guideline		NA	Standard implementation Practice

Existing Plan Direction	SNFPA (page)	2017 Forest Plan Direction (page)	Where Existing Plan Component Applies	Resource Area	Existing Plan Component	S&G #	Proposed Project Specific Amendment?	How is SERAL Compliant?
VQO Retention (17-B-2): Manage to a VQO of Retention. This is the adopted VQO level for Near Natural as shown on the VQO Map	NA	117	Near Natural	Visual Resources	Standard /Guideline		NA	VQO Objectives will be identified for proposed treatment areas prior to implementation and prescriptions will include specific mitigation measures or specifications to ensure the treatments do not alter the landscape beyond the adopted VQO.
VQO Retention (17-B-2): Provide a high-quality visual setting where changes are not readily evident.	NA	117	Near Natural	Visual Resources	General Direction	NA	NA	VQO Objectives will be identified for proposed treatment areas prior to implementation and prescriptions will include specific mitigation measures or specifications to ensure the treatments do not alter the landscape beyond the adopted VQO.
Insect and Disease Management (6-A): Carry out insect and disease control measures where needed to protect the integrity of the habitat for the recovery species emphasized.	NA	119	Wildlife	Forest Pests	General Direction	NA	NA	DEIS Chapter 1.01; DEIS Chapter 2.01
Insect and Disease Management (6-A): Insect and disease control measures including salvage logging of infected and dying trees will require Biological Evaluations which address effects of the control measures on Threatened, Endangered and sensitive species.	NA	119	Wildlife	Forest Pests	Standard /Guideline	Insect and Disease Management (6-A)	NA	DEIS Chapter 1.01; DEIS Chapter 2.01; DEIS Chapter 6.02 and 6.03; 2021-1202_DRAFT_SERAL_Wildlife_BiologicalEvaulation; 2021-1119_DRAFT_SERAL_AquaticBiologicalAssessmentEvaluation
Structural Habitat Improvement and Maintenance (5-K): Conduct activities as needed to meet wildlife objectives. All such activities and objectives will be consistent with the overall objectives of the Management Area.	NA	119	Wildlife	Fish and Wildlife	General Direction	NA	NA	DEIS Chapter 1.01; DEIS Chapter 2.01; DEIS Chapter 6.02 and 6.03; 2021-1202_DRAFT_SERAL_Wildlife_BiologicalEvaulation; 2021-1119_DRAFT_SERAL_AquaticBiologicalAssessmentEvaluation
This area emphasizes late seral stage management indicator species (MIS) and all other wildlife which require mature and older forest habitats for part or all of their life cycle. Management indicator species used to prescribe management direction are spotted owl, fisher and marten which are all designated sensitive species. A variety of semi-primitive motorized recreation opportunities are also provided.	NA	119	Wildlife	Fish and Wildlife	Management Emphasis	NA	NA	DEIS Chapter 6.04; 2021-1119_DRAFT_SERAL_MIS_Report
VQO - Partial Retention (17-B-3): Base size, shape, and dispersion of harvest units, road construction and other resource disturbances on meeting middleground Partial Retention. This is the adopted VQO level for those Wildlife areas as shown on the VQO Map.	NA	122	Wildlife	Visual Resources	Standard /Guideline		NA	VQO Objectives will be identified for proposed treatment areas prior to implementation and prescriptions will include specific mitigation measures or specifications to ensure the treatments do not alter the landscape beyond the adopted VQO.
VQO - Partial Retention (17-B-3): Design land and vegetation disturbing projects to meet Partial Retention, in middleground distance zones where this is the VQO.	NA	122	Wildlife	Visual Resources	General Direction	NA	NA	VQO Objectives will be identified for proposed treatment areas prior to implementation and prescriptions will include specific mitigation measures or specifications to ensure the treatments do not alter the landscape beyond the adopted VQO.
VQO - Retention (17-B-2): Maintain the visual character of the VQO Retention for the pleasure of the viewing public. Design land and vegetation disturbing projects to meet Retention.	NA	122	Wildlife	Visual Resources	General Direction	NA	NA	VQO Objectives will be identified for proposed treatment areas prior to implementation and prescriptions will include specific mitigation measures or specifications to ensure the treatments do not alter the landscape beyond the adopted VQO.

Existing Plan Direction	SNFPA (page)	2017 Forest Plan Direction (page)	Where Existing Plan Component Applies	Resource Area	Existing Plan Component	S&G #	Proposed Project Specific Amendment?	How is SERAL Compliant?
VQO - Retention (17-B-2): Manage to a VQO of Retention. Base size, shape and dispersion of harvest units, road construction, and other resource disturbance on meeting Retention. This is the adopted VQO level for Wildlife, as shown on the VQO Map.	NA	122	Wildlife	Visual Resources	Standard /Guideline		NA	VQO Objectives will be identified for proposed treatment areas prior to implementation and prescriptions will include specific mitigation measures or specifications to ensure the treatments do not alter the landscape beyond the adopted VQO.
VQO - Modification (M) (17-B-4): Manage to a VQO of Modification. This is the adopted VQO level for General Forest (GF91), as shown on the VQO Map.	NA	158	General Forest (GF91)	Visual Resources	Standard /Guideline		NA	VQO Objectives will be identified for proposed treatment areas prior to implementation and prescriptions will include specific mitigation measures or specifications to ensure the treatments do not alter the landscape beyond the adopted VQO.
VQO - Modification (M) (17-B-4): Management activities may visually dominate the surrounding characteristic landscape, but should borrow the form, line, color and texture of the natural surroundings.	NA	158	General Forest (GF91)	Visual Resources	General Direction	NA	NA	VQO Objectives will be identified for proposed treatment areas prior to implementation and prescriptions will include specific mitigation measures or specifications to ensure the treatments do not alter the landscape beyond the adopted VQO.
The outstandingly remarkable values for which wild and scenic rivers have been established, are candidates for designation, or are under study, are protected and preserved for the benefit and enjoyment of present and future generations. Free-flowing conditions of wild and scenic rivers, candidate or study rivers, are preserved. Human influence may be evident, but does not interfere with, or impede the natural succession of river ecosystems.	36	179	Wild and Scenic Rivers, All Forests	Wild and Scenic Rivers	Desired Condition	NA	NA	DEIS Chapter 3.01 - Issue 5
California spotted owl protected activity centers (PACs) are delineated surrounding each territorial owl activity center detected on National Forest System lands since 1986. Owl activity centers are designated for all territorial owls based on: (1) the most recent documented nest site, (2) the most recent known roost site when a nest location remains unknown, and (3) a central point based on repeated daytime detections when neither nest or roost locations are known.	37	179	California Spotted Owl PACs, All Forests	California Spotted Owl PACs	Land allocation	NA	**Yes, See DEIS Appendix B Table B.1**	After updated survey information is completed, CSO PAC delineations will be updated based on LAND-SERAL-WILDLIFE-01 for Alternative 1 (DEIS Appendix B, Table B.1); or existing plan direction for Alternative 3 and 4
PACs are delineated to: (1) include known and suspected nest stands and (2) encompass the best available 300 acres of habitat in as compact a unit as possible. The best available habitat is selected for California spotted owl PACs to include: (1) two or more tree canopy layers; (2) trees in the dominant and codominant crown classes averaging 24 inches dbh or greater; (3) at least 70 percent tree canopy cover (including hardwoods); and (4) in descending order of priority, CWHR classes 6, 5D, 5M, 4D, and 4M and other stands with at least 50 percent canopy cover (including hardwoods). Aerial photography interpretation and field verification are used as needed to delineate PACs.	37	179	California Spotted Owl PACs, All Forests	California Spotted Owl PACs	Land allocation	NA	Yes, See DEIS Appendix B Table B.1	After updated survey information is completed, CSO PAC delineations will be updated based on LAND-SERAL-WILDLIFE-01 for Alternative 1 (DEIS Appendix B, Table B.1); or existing plan direction for Alternative 3 and 4
As additional nest location and habitat data become available, boundaries of PACs are reviewed and adjusted as necessary to better include known and suspected nest stands and encompass the best available 300 acres of habitat.	37	179	California Spotted Owl PACs, All Forests	California Spotted Owl PACs	Land allocation	NA	**Yes, See DEIS Appendix B Table B.1**	After updated survey information is completed, CSO PAC delineations will be updated based on LAND-SERAL-WILDLIFE-01 and SPEC-CSO-STD-01 for Alternative 1 (DEIS Appendix B, Table B.1); or existing plan direction for Alternative 3 and 4

Existing Plan Direction	SNFPA (page)	2017 Forest Plan Direction (page)	Where Existing Plan Component Applies	Resource Area	Existing Plan Component	S&G #	Proposed Project Specific Amendment?	How is SERAL Compliant?
Sensitive Plants Interim and Recovery Management (12-A): Complete population surveys for Allium yosemitense, Eriophyllum congdonii and Lewisia congdonii before any type of new activity. Conduct interpretive or education activities in a way which fully protect sensitive plants and their habitat.	NA	127	Special Interest Areas	Sensitive Plants	Standard /Guideline		NA	DEIS Chapter 2.03; DEIS Chapter 6.03; 2021-1119_DRAFT_SERAL_Botany_BIologicalEvaluation
PACs are maintained regardless of California spotted owl occupancy status. However, after a stand replacing event, evaluate habitat conditions within a 1.5-mile radius around the activity center to identify opportunities for re-mapping the PAC. If there is insufficient suitable habitat for designating a PAC within the 1.5-mile radius, the PAC may be removed from the network.	37	180	California Spotted Owl PACs, All Forests	California Spotted Owl PACs	Land allocation	NA	Yes, See DEIS Appendix B Table B.1	After updated survey information is completed, CSO PACs may be retired based on SPEC-CSO-STD-02 and SPEC-CSO-STD-03 for Alternative 1 (DEIS Appendix B, Table B.1); or existing plan direction for Alternative 3 and 4
Stands in each PAC have: (1) at least two tree canopy layers; (2) dominant and co-dominant trees with average diameters of at least 24 inches dbh; (3) at least 60 to70 percent canopy cover; (4) some very large snags (greater than 45 inches dbh); and (5) snag and down woody material levels that are higher than average.	37	180	California Spotted Owl PACs, All Forests	California Spotted Owl PACs	Desired Condition	NA	*Yes, See DEIS Appendix B Table B.1*	DEIS Chapter 2 (Alternative 3 and 4); Alternative 1 is governed by SPEC-CSO-DC-06 (DEIS Appendix B, Table B.1).
When activities are planned adjacent to non-national forest lands, available databases are checked for the presence of nearby California spotted owl activity centers on non-national forest lands. A 300-acre circular area, centered on the activity center, is delineated. Any part of the circular 300-acre area that lies on national forest lands is designated and managed as a California spotted owl PAC.	37	180	California Spotted Owl PACs, All Forests	California Spotted Owl PACs	Land Allocation	NA		Standard Practice
Best available forested stands for PACs have the following characteristics: (1) trees in the dominant and co-dominant crown classes average 24 inches dbh or greater; (2) in westside conifer and eastside mixed conifer forest types, stands have at least 70 percent tree canopy cover; and (3) in eastside pine forest types, stands have at least 60 percent tree canopy cover. Non-forest vegetation (such as brush and meadows) should not be counted as part of the 200 acres. As additional nest location and habitat data become available, PAC boundaries are reviewed and adjusted as necessary to better include known and suspected nest stands and to encompass the best available 200 acres of forested habitat.	38	180	Northern Goshawk PACs, All Forests	Northern Goshawk PACs	Land allocation	NA		2021-1202_DRAFT_SERAL_Wildlife_BiologicalEvaulation
Northern goshawk protected activity centers (PACs) are delineated surrounding all known and newly discovered breeding territories detected on National Forest System lands. Northern goshawk PACs are designated based upon the latest documented nest site and location(s) of alternate nests. If the actual nest site is not located, the PAC is designated based on the location of territorial adult birds or recently fledged juvenile goshawks during the fledgling dependency period. PACs are delineated to: (1) include known and suspected nest stands and (2) encompass the best available 200 acres of forested habitat in the largest contiguous patches possible, based on aerial photography. Where suitable nesting habitat occurs in small patches, PACs are defined as multiple blocks in the largest best available patches within 0.5 miles of one another.	38	180	Northern Goshawk PACs, All Forests	Northern Goshawk PACs	Land allocation	NA		2021-1202_DRAFT_SERAL_Wildlife_BiologicalEvaulation

Existing Plan Direction	SNFPA (page)	2017 Forest Plan Direction (page)	Where Existing Plan Component Applies	Resource Area	Existing Plan Component	S&G #	Proposed Project Specific Amendment?	How is SERAL Compliant?
PACs are maintained regardless of northern goshawk occupancy status. PACs may be removed from the network after a stand-replacing event if the habitat has been rendered unsuitable as a northern goshawk PAC and there are no opportunities for re-mapping the PAC in proximity to the affected PAC.	38	180	Northern Goshawk PACs, All Forests	Northern Goshawk PACs	Land allocation	NA	NA	2021-1202_DRAFT_SERAL_Wildlife_BiologicalEvaulation
Stands in each PAC have: (1) at least two tree canopy layers; (2) dominant and co-dominant trees with average diameters of at least 24 inches dbh; (3) at least 60 to70 percent canopy cover; (4) some very large snags (greater than 45 inches dbh); and (5) snag and down woody material levels that are higher than average	38	180	Northern Goshawk PACs, All Forests	Northern Goshawk PACs	Desired Condition	NA	NA	2021-1202_DRAFT_SERAL_Wildlife_BiologicalEvaulation
When activities are planned adjacent to non-national forest lands, available databases are checked for the presence of nearby northern goshawk activity centers on non-national forest lands. A 200-acre circular area, centered on the activity center, is delineated. Any part of the circular 200-acre area that lies on national forest lands is designated and managed as a northern goshawk PAC	38	180	Northern Goshawk PACs, All Forests	Northern Goshawk PACs	Land allocation	NA	NA	2021-1202_DRAFT_SERAL_Wildlife_BiologicalEvaulation
73. While mechanical treatments may be conducted in protected activity centers (PACs) located in WUI defense zones and, in some cases, threat zones, *they are prohibited within a 500-foot radius buffer around a spotted owl activity center within the designated PAC.* Prescribed burning is allowed within the 500-foot radius buffer. Hand treatments, including handline construction, tree pruning, and cutting of small trees (less than 6 inches dbh), may be conducted prior to burning as needed to protect important elements of owl habitat. Treatments in the remainder of the PAC use the forest-wide standards and guidelines for mechanical thinning.	60	181	California Spotted Owl PACs, All Forests	California Spotted Owl and northern goshawk PACs	Standard /Guideline	73	Yes, See DEIS Appendix B Table B.1	DEIS Chapter 2. Alternative 1 is governed by SPEC-CSO-STD-07 (DEIS Appendix B, Table B.1), Alternative 3 and 4 are governed by existing forest plan direction as written.
74. In PACs located outside the WUI, limit stand-altering activities to reducing surface and ladder fuels through prescribed fire treatments. In forested stands with overstory trees 11 inches dbh and greater, design prescribed fire treatments to have an average flame length of 4 feet or less. Hand treatments, including handline construction, tree pruning, and cutting of small trees (less than 6 inches dbh), may be conducted prior to burning as needed to protect important elements of owl habitat.	60	181	Northern Goshawk PACs, All Forests	California Spotted Owl and northern goshawk PACs	Standard /Guideline	74	*Yes, See DEIS Appendix B Table B.1*	DEIS Chapter 2. Alternative 1 is governed by SPEC-CSO-STD-04 (DEIS Appendix B, Table B.1), Alternative 3 and 4 are governed by existing forest plan direction as written.
75. For California spotted owl PACs: Maintain a limited operating period (LOP), prohibiting vegetation treatments within approximately ¼ mile of the activity center during the breeding season (March 1 through August 31), unless surveys confirm that California spotted owls are not nesting. Prior to implementing activities within or adjacent to a California spotted owl PAC and the location of the nest site or activity center is uncertain, conduct surveys to establish or confirm the location of the nest or activity center.	60	181	Northern Goshawk PACs, All Forests	California Spotted Owl and northern goshawk PACs	Standard /Guideline	75	Yes, See DEIS Appendix B Table B.1	DEIS Chapter 2.03; Alternative 1 is governed by SPEC-CSO-GDL-04 (DEIS Appendix B, Table B.1), Alternative 3 and 4 are governed by existing forest plan direction as written.

Existing Plan Direction	SNFPA (page)	2017 Forest Plan Direction (page)	Where Existing Plan Component Applies	Resource Area	Existing Plan Component	S&G #	Proposed Project Specific Amendment?	How is SERAL Compliant?
72. Mechanical treatments may be conducted to meet fuels objectives in protected activity centers (PACs) located in WUI defense zones. In PACs located in WUI threat zones, mechanical treatments are allowed where prescribed fire is not feasible and where avoiding PACs would significantly compromise the overall effectiveness of the landscape fire and fuels strategy. Mechanical treatments should be designed to maintain habitat structure and function of the PAC	59-60	181	California Spotted Owl and Northern Goshawk PACs, All Forests	California Spotted Owl and northern goshawk PACs	Standard /Guideline		*Yes, See DEIS Appendix B Table B.1*	DEIS Chapter 2. Alternative 1 is governed by SPEC-CSO-STD-04 (DEIS Appendix B, Table B.1), Alternative 3 and 4 are governed by existing forest plan direction as written.
77. The LOP may be waived for vegetation treatments of limited scope and duration, when a biological evaluation determines that such projects are unlikely to result in breeding disturbance considering their intensity, duration, timing and specific location. Where a biological evaluation concludes that a nest site would be shielded from planned activities by topographic features that would minimize disturbance, the LOP buffer distance may be modified.	60	182	Northern Goshawk PACs, All Forests	California Spotted Owl and northern goshawk PACs	Standard /Guideline	77	NA	DEIS Chapter 2.03; 2021-1202_DRAFT_SERAL_Wildlife_BiologicalEvaulation
78. Breeding season limited operating period restrictions may be waived, where necessary, to allow for use of early season prescribed fire in up to 5 percent of California spotted owl PACs per year on a forest.	61	182	California Spotted Owl PACs, All Forests	California Spotted Owl and northern goshawk PACs	Standard /Guideline	78	Yes, See DEIS Appendix B Table B.1	DEIS Chapter 2.03; 2021-1202_DRAFT_SERAL_Wildlife_BiologicalEvaulation
79. Breeding season limited operating period restrictions may be waived, where necessary, to allow for use of early season prescribed fire in up to 5 percent of northern goshawk PACs per year on a forest.	61	182	Northern Goshawk PACs, All Forests	California Spotted Owl and northern goshawk PACs	Standard /Guideline	79	Yes, See DEIS Appendix B Table B.1	DEIS Chapter 2.03; 2021-1202_DRAFT_SERAL_Wildlife_BiologicalEvaulation
82. Mitigate impacts where there is documented evidence of disturbance to the nest site from existing recreation, off highway vehicle route, trail, and road uses (including road maintenance). Evaluate proposals for new roads, trails, off highway vehicle routes, and recreational and other developments for their potential to disturb nest sites	61	182	California Spotted Owl and northern goshawk PACs, All Forests	California Spotted Owl and northern goshawk PACs	Standard /Guideline	82		DEIS Chapter 2.03
83. Apply a limited operating period, prohibiting vegetation treatments and road construction within ¼ mile of an active great gray owl nest stand, during the nesting period (typically March 1 to August 15). The LOP may be waived for vegetation treatments of limited scope and duration, when a biological evaluation determines that such projects are unlikely to result in breeding disturbance considering their intensity, duration, timing and specific location. Where a biological evaluation concludes that a nest site would be shielded from planned activities by topographic features that would minimize disturbance, the LOP buffer distance may be reduced.	61	182	Great Gray Owl PACs, All Forests	Great Gray Owl	Standard /Guideline	83	NA	DEIS Chapter 2.03
Great Grey Owl PACs: Protected activity centers (PACs) are established and maintained to include the forested area and adjacent meadow around all known great gray owl nest stands. The PAC encompasses at least 50 acres of the highest quality nesting habitat (CWHR types 6, 5D, and 5M) available in the forested area surrounding the nest. The PAC also includes the meadow or meadow complex that supports the prey base for nesting owls.	38-39	182	Great Gray Owl PACs, All Forests	Great Gray Owl PACs	Land allocation	NA	NA	2021-1202_DRAFT_SERAL_Wildlife_BiologicalEvaulation

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Areas surrounding fisher den sites include at least two large (greater than 40 inches dbh) conifers per acre, and one or more oaks (greater than 20 inches dbh) per acre with suitable denning cavities. Canopy closure exceeds 80 percent.	39	183	Fisher Den Site Buffers, All Forests	Forest Carnivore Den Site Buffers	Desired Condition	NA	NA	2021-1202_DRAFT_SERAL_Wildlife_BiologicalEvaulation
Areas surrounding marten den sites have (1) at least two conifers per acre greater than 24 inches dbh with suitable denning cavities, (2) canopy closures exceeding 60 percent, (3) more than 10 tons per acre of coarse woody debris in decay classes 1 and 2, and (4) an average of 6 snags per acre on the westside and 3 per acre on the eastside.	39	183	Marten Den Site Buffers, All Forests	Forest Carnivore Den Site Buffers	Desired Condition	NA	NA	2021-1202_DRAFT_SERAL_Wildlife_BiologicalEvaulation
84. In meadow areas of great gray owl PACs, maintain herbaceous vegetation at a height commensurate with site capability and habitat needs of prey species. Follow regional guidance to determine potential prey species and associated habitat requirements at the project level.	61	183	Great Gray Owl PACs, All Forests	Great Gray Owl	Standard /Guideline	84	NA	2021-1202_DRAFT_SERAL_Wildlife_BiologicalEvaulation
Special Cutting - Other (15-I): Special cutting methods will be used to salvage mortality or improve the quality of resources other than the timber resources.	NA	178	Developed (Non-Recreation) Sites	Timber	Standard /Guideline		NA	DEIS Chapter 1.01, DEIS Chapter 2.
88. Protect marten den site buffers from disturbance from vegetation treatments with a limited operating period (LOP) from May 1 through July 31 as long as habitat remains suitable or until another Regionally-approved management strategy is implemented. The LOP may be waived for individual projects of limited scope and duration, when a biological evaluation documents that such projects are unlikely to result in breeding disturbance considering their intensity, duration, timing, and specific location.	62	183	Marten Den Site Buffers, All Forests	Marten Den Sites	Standard /Guideline	88	NA	DEIS Chapter 2.03
A home range core area is established surrounding each territorial spotted owl activity center detected after 1986. The core area amounts to 20 percent of the area described by the sum of the average breeding pair home range plus one standard error. Home range core area sizes are as follows: 2,400 acres on the Hat Creek and Eagle Lake Ranger Districts of the Lassen National Forest, 1,000 acres on the Modoc, Inyo, Humboldt-Toiyabe, Plumas, Tahoe, Eldorado, Lake Tahoe Basin Management Unit and Stanislaus National Forests and on the Almanor Ranger District of Lassen National Forest, and 600 acres of the Sequoia and Sierra National Forests. Aerial photography is used to delineate the core area. Acreage for the entire core area is identified on national forest lands. Core areas encompass the best available California spotted owl habitat in the closest proximity to the owl activity center. The best available contiguous habitat is selected to incorporate, in descending order of priority, CWHR classes 6, 5D, 5M, 4D and 4M and other stands with at least 50 percent tree canopy cover (including hardwoods). The acreage in the 300-acre PAC counts toward the total home range core area. Core areas are delineated within 1.5 miles of the activity center.	39	184	California Spotted Owl HRCAs, All Forests	California Spotted Owl HRCAs	Land Allocation	NA	Yes, See DEIS Appendix B Table B.1	After updated survey information is completed, CSO HRCA or Territories will be updated based on LAND-SERAL-WILDLIFE-02 for Alternative 1 (DEIS Appendix B, Table B.1); or existing plan direction for Alternative 3 and 4

Existing Plan Direction	SNFPA (page)	2017 Forest Plan Direction (page)	Where Existing Plan Component Applies	Resource Area	Existing Plan Component	S&G #	Proposed Project Specific Amendment?	How is SERAL Compliant?
Old Forest Emphasis Areas: Forest structure and function across old forest emphasis areas generally resemble pre-settlement conditions. High levels of horizontal and vertical diversity exist at the landscape-scale (roughly 10,000 acres). Stands are composed of roughly even-aged vegetation groups, varying in size, species composition, and structure. Individual vegetation groups range from less than 0.5 to more than 5 acres in size. Tree sizes range from seedlings to very large diameter trees. Species composition varies by elevation, site productivity, and related environmental factors. Multi-tiered canopies, particularly in older forests, provide vertical heterogeneity. Dead trees, both standing and fallen, meet habitat needs of old-forest associated species. Where possible, areas treated to reduce fuel levels also provide for the successful establishment of early seral stage vegetation.	41	184	Old Forest Emphasis Areas, All Forests	Old Forest Emphasis Areas	Desired Condition	NA	NA	DEIS Chapter 1.01 and Chapter 2.
California Spotted Owl HRCAs When activities are planned adjacent to non-national forest lands, circular core areas are delineated around California spotted owl activity centers on non-national forest lands. Using the best available habitat as described above, any part of the circular core area that lies on national forest lands is designated and managed as a California spotted owl home range core area.	39	185	California Spotted Owl HRCAs, All Forests	California Spotted Owl HRCAs	Land Allocation	NA		
WUI Defense Zones Stands in **defense zones** are fairly open and dominated primarily by larger, fire tolerant trees.	40	185	WUI: Defense Zones, All Forests	WUI: Defense Zone	Desired Condition	NA	NA	
WUI Defense Zones Surface and ladder fuel conditions are such that crown fire ignition is highly unlikely.	40	185	WUI: Defense Zones, All Forests	WUI: Defense Zone	Desired Condition	NA	NA	
WUI Defense Zones: The openness and discontinuity of crown fuels, both horizontally and vertically, result in very low probability of sustained crown fire.	40	185	WUI: Defense Zones, All Forests	WUI: Defense Zone	Desired Condition	NA	NA	
WUI Defense Zones Fuels treatments within WUI Defense Zones should be of sufficient extent that fuel treatments within them will reduce wildland fire spread and intensity sufficiently for suppression forces to succeed in protecting human life and property. **Objective of the WUI Defense Zone**: Create defensible space near communities and provide a safe and effective area for suppressing fire. Design economically efficient treatments to reduce hazardous fuels.	40	185	WUI: Defense Zones, All Forests	Wildland Fire	Management Objective	NA	NA	have we proposed to apply a more aggressive treatment in these areas?
California Spotted Owl HRCAs consist of large habitat blocks that have: (1) at least two tree canopy layers; (2) at least 24 inches dbh in dominant and co-dominant trees; (3) a number of very large (greater than 45 inches dbh) old trees; (4) at least 50 to 70 percent canopy cover; and (5) higher than average levels of snags and down woody material.	40	185	California Spotted Owl HRCAs, All Forests	California Spotted Owl HRCAs	Desired Condition	NA	Yes, See DEIS Appendix B Table B.1	2021-1202_DRAFT_SERAL_Wildlife_BiologicalEvaulation
Establish and maintain a pattern of fuels treatments that is effective in modifying wildfire behavior. Design treatments in HRCAs to be economically efficient and to promote forest health where consistent with habitat objectives	46	185	California Spotted Owl HRCAs, All Forests	Wildlife	Management Objective	NA	**Yes, See DEIS Appendix B Table B.1**	DEIS Purpose and Need 1.01 and DEIS Chapter 2

Existing Plan Direction	SNFPA (page)	2017 Forest Plan Direction (page)	Where Existing Plan Component Applies	Resource Area	Existing Plan Component	S&G #	Proposed Project Specific Amendment?	How is SERAL Compliant?
WUI Threat Zones: Under high fire weather conditions, wildland fire behavior in treated areas within the threat zone is characterized as follows: (1) flame lengths at the head of the fire are less than 4 feet; (2) the rate of spread at the head of the fire is reduced to at least 50 percent of pre-treatment levels; (3) hazards to firefighters are reduced by managing snag levels in locations likely to be used for control of prescribed fire and fire suppression consistent with safe practices guidelines; (4) production rates for fire line construction are doubled from pre-treatment levels; and (5) tree density has been reduced to a level consistent with the site's ability to sustain forest health during drought conditions.	40	186	WUI: Threat Zones, All Forests	WUI: Threat Zone	Desired Condition	NA	NA	DEIS Purpose and Need 1.01; DEIS Chapter 2 - could be addressed more directly further if necessary
RCAs: Habitat supports viable populations of native and desired non-native plant, invertebrate, and vertebrate riparian and aquatic-dependent species. New introductions of invasive species are prevented. Where invasive species are adversely affecting the viability of native species, the appropriate State and Federal wildlife agencies have reduced impacts to native populations.	42-43	187	Riparian Conservation Areas, All Forests	Riparian Conservation Areas	Desired Condition	NA	NA	2021-1119_DRAFT_SERAL_AquaticBiologicalAssessmentEvaluation
RCAs: Riparian conservation area (RCA) widths are described below. RCA widths shown below may be adjusted at the project level if a landscape analysis has been completed and a site-specific RCO analysis demonstrates a need for different widths. **Perennial Streams**: 300 feet on each side of the stream, measured from the bank full edge of the stream. **Seasonally Flowing Streams (includes intermittent and ephemeral streams)**: 150 feet on each side of the stream, measured from the bank full edge of the stream. **Streams in Inner Gorge:** top of inner gorge. **Special Aquatic Features (including lakes, wet meadows, bogs, fens, wetlands, vernal pools, and springs) or Perennial Streams with Riparian Conditions extending more than 150 feet from edge of streambank or Seasonally Flowing streams with riparian conditions extending more than 50 feet from edge of streambank:** 300 feet from edge of feature or riparian vegetation, whichever width is greater. **Other hydrological or topographic depressions without a defined channel:** RCA width and protection measures determined through project level analysis.	42-43	187	Riparian Conservation Areas, All Forests	Riparian Conservation Areas	Land allocation	NA	NA	2021-1118_DRAFT_SERAL Watershed Report; 2021-1119_DRAFT_SERAL_AquaticBiologicalAssessmentEvaluation
RCAs: Spatial and temporal connectivity for riparian and aquatic-dependent species within and between watersheds provides physically, chemically and biologically unobstructed movement for their survival, migration and reproduction.	42-43	187	Riparian Conservation Areas, All Forests	Riparian Conservation Areas	Desired Condition	NA	NA	2021-1118_DRAFT_SERAL Watershed Report; 2021-1119_DRAFT_SERAL_AquaticBiologicalAssessmentEvaluation
RCAs: The distribution and health of biotic communities in special aquatic habitats (such as springs, seeps, vernal pools, fens, bogs, and marshes) perpetuates their unique functions and biological diversity.	42-43	187	Riparian Conservation Areas, All Forests	Riparian Conservation Areas	Desired Condition	NA	NA	2021-1118_DRAFT_SERAL Watershed Report
RCAs: Water quality meets the goals of the Clean Water Act and Safe Drinking Water Act; it is fishable, swimmable, and suitable for drinking after normal treatment.	42-43	187	Riparian Conservation Areas, All Forests	Riparian Conservation Areas	Desired Condition	NA	NA	2021-1118_DRAFT_SERAL Watershed Report, DEIS Chapter 6.12

Existing Plan Direction	SNFPA (page)	2017 Forest Plan Direction (page)	Where Existing Plan Component Applies	Resource Area	Existing Plan Component	S&G #	Proposed Project Specific Amendment?	How is SERAL Compliant?
92. Evaluate new proposed management activities within CARs and RCAs during environmental analysis to determine consistency with the riparian conservation objectives at the project level and the AMS goals for the landscape. Ensure that appropriate mitigation measures are enacted to (1) minimize the risk of activity-related sediment entering aquatic systems and (2) minimize impacts to habitat for aquatic- or riparian-dependent plant and animal species.	62	188	Riparian Conservation Areas and Critical Aquatic Refuges, All Forests	Riparian Conservation Areas and Critical Aquatic Refuges	Standard /Guideline	92	NA	2021-1118_DRAFT_SERAL Watershed Report; 2021-1119_DRAFT_SERAL_AquaticBiologicalAssessmentEvaluation
93. Identify existing uses and activities in CARs and RCAs during landscape analysis. At the time of permit reissuance, evaluate and consider actions needed for consistency with RCOs.	62	188	Riparian Conservation Areas and Critical Aquatic Refuges, All Forests	Riparian Conservation Areas and Critical Aquatic Refuges	Standard /Guideline	93	NA	2021-1118_DRAFT_SERAL Watershed Report
RCAs: The physical structure and condition of stream banks and shorelines minimizes erosion and sustains desired habitat diversity.	42-43	188	Riparian Conservation Areas, All Forests	Riparian Conservation Areas	Desired Condition	NA	NA	2021-1118_DRAFT_SERAL Watershed Report
101. Locate water drafting sites to avoid adverse effects to in-stream flows and depletion of pool habitat.	63	189	Riparian Conservation Areas and Critical Aquatic Refuges, All Forests	RCO #2	Standard /Guideline	101	NA	2021-1117_DRAFT_SERAL_BMP_checklist.pdf
102. Evaluate required long-term restoration actions and implement them according to their status among other restoration needs.	63	189	Riparian Conservation Areas and Critical Aquatic Refuges, All Forests	RCO #2	Standard /Guideline	102	NA	2021-1118_DRAFT_SERAL Watershed Report
102. Prior to activities that could adversely affect streams, determine if relevant stream characteristics are within the range of natural variability. If characteristics are outside the range of natural variability, implement mitigation measures and short-term restoration actions needed to prevent further declines or cause an upward trend in conditions.	63	189	Riparian Conservation Areas and Critical Aquatic Refuges, All Forests	RCO #2	Standard /Guideline	102	NA	2021-1118_DRAFT_SERAL Watershed Report
103. Prevent disturbance to streambanks and natural lake and pond shorelines caused by resource activities (for example, livestock, off-highway vehicles, and dispersed recreation) from exceeding 20 percent of stream reach or 20 percent of natural lake and pond shorelines. Disturbance includes bank sloughing, chiseling, trampling, and other means of exposing bare soil or cutting plant roots. This standard does not apply to developed recreation sites, sites authorized under Special Use Permits and designated off-highway vehicle routes.	63	189	Riparian Conservation Areas and Critical Aquatic Refuges, All Forests	RCO #2	Standard /Guideline	103	NA	2021-1118_DRAFT_SERAL Watershed Report; 2021-1117_DRAFT_SERAL_BMP_checklist
104. Cooperate with State and Federal agencies to develop streambank disturbance standards for threatened endangered, and sensitive species. Use the regional streambank assessment protocol. Implement corrective action where disturbance limits have been exceeded.	63	189	Riparian Conservation Areas and Critical Aquatic Refuges, All Forests	RCO #2	Standard /Guideline	104	NA	2021-1118_DRAFT_SERAL Watershed Report; 2021-1117_DRAFT_SERAL_BMP_checklist
95. For waters designated as “Water Quality Limited” (Clean Water Act Section 303(d)), participate in the development of Total Maximum Daily Loads (TMDLs) and TMDL Implementation Plans. Execute applicable elements of completed TMDL Implementation Plans.	63	189	Riparian Conservation Areas and Critical Aquatic Refuges, All Forests	RCO #1	Standard /Guideline	95	NA	2021-1118_DRAFT_SERAL Watershed Report; 2021-1117_DRAFT_SERAL_BMP_checklist
96. Ensure that management activities do not adversely affect water temperatures necessary for local aquatic- and riparian-dependent species assemblages.	63	189	Riparian Conservation Areas and Critical Aquatic Refuges, All Forests	RCO #1	Standard /Guideline	96	NA	2021-1118_DRAFT_SERAL Watershed Report; 2021-1117_DRAFT_SERAL_BMP_checklist
97. Limit pesticide applications to cases where project level analysis indicates that pesticide applications are consistent with riparian conservation objectives.	63	189	Riparian Conservation Areas and Critical Aquatic Refuges, All Forests	RCO #1	Standard /Guideline	97	NA	2021-1118_DRAFT_SERAL Watershed Report; 2021-1117_DRAFT_SERAL_BMP_checklist; DEIS Chapter 3.01 Issue 8.

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99. Ensure that spill plans are reviewed and up-to-date.	63	189	Riparian Conservation Areas and Critical Aquatic Refuges, All Forests	RCO #1	Standard /Guideline	99	NA	DEIS Chapter 2.03
99. Prohibit storage of fuels and other toxic materials within RCAs and CARs except at designated administrative sites and sites covered by a Special Use Authorization. Prohibit refueling within RCAs and CARs unless there are no other alternatives.	63	189	Riparian Conservation Areas and Critical Aquatic Refuges, All Forests	RCO #1	Standard /Guideline	99	NA	2021-1117_DRAFT_SERAL_BMP_checklist
105. At either the landscape or project-scale, determine if the age class, structural diversity, composition, and cover of riparian vegetation are within the range of natural variability for the vegetative community. If conditions are outside the range of natural variability, consider implementing mitigation and/or restoration actions that will result in an upward trend. Actions could include restoration of aspen or other riparian vegetation where conifer encroachment is identified as a problem.	64	189	Riparian Conservation Areas and Critical Aquatic Refuges, All Forests	RCO #2	Standard /Guideline	105	NA	DEIS Chapter 1.01
108. Determine if the level of coarse large woody debris (CWD) is within the range of natural variability in terms of frequency and distribution and is sufficient to sustain stream channel physical complexity and stability.	64	190	Riparian Conservation Areas and Critical Aquatic Refuges, All Forests	RCO #3	Standard /Guideline	108	NA	DEIS Chapter 1.01
108. Ensure proposed management activities move conditions toward the range of natural variability	64	190	Riparian Conservation Areas and Critical Aquatic Refuges, All Forests	RCO #3	Standard /Guideline	108	NA	DEIS Chapter 1.01, DEIS Chapter 3
109. Within CARs, in occupied habitat or “essential habitat” as identified in conservation assessments for threatened, endangered, or sensitive species, evaluate the appropriate role, timing, and extent of prescribed fire. Avoid direct lighting within riparian vegetation; prescribed fires may back into riparian vegetation areas. Develop mitigation measures to avoid impacts to these species whenever ground-disturbing equipment is used.	64	190	Riparian Conservation Areas and Critical Aquatic Refuges, All Forests	RCO #4	Standard /Guideline	109	NA	2021-1117_DRAFT_SERAL_BMP_checklist
Visual Resource Improvement (17-C): Allow a short-term reduction from Retention to Partial Retention, when absolutely necessary, on approved major non-timber projects that conflict with the Retention objective. Require detailed grading and revegetation plans from project proponents that return the impacted areas to Retention within a reasonable time.	NA	153	Scenic Corridor	Visual Resources	Standard /Guideline		NA	VQO Objectives will be identified for proposed treatment areas prior to implementation and prescriptions will include specific mitigation measures or specifications to ensure the treatments do not alter the landscape beyond the adopted VQO.
110. Use screening devices for water drafting pumps. (Fire suppression activities are exempt during initial attack.) Use pumps with low entry velocity to minimize removal of aquatic species, including juvenile fish, amphibian egg masses and tadpoles, from aquatic habitats.	64	190	Riparian Conservation Areas and Critical Aquatic Refuges, All Forests	RCO #4	Standard /Guideline	110	NA	2021-1117_DRAFT_SERAL_BMP_checklist
Visual Resource Improvement (17-C): Mitigate or restore visual quality reductions.	NA	153	Scenic Corridor	Visual Resources	General Direction	NA	NA	VQO Objectives will be identified for proposed treatment areas prior to implementation and prescriptions will include specific mitigation measures or specifications to ensure the treatments do not alter the landscape beyond the adopted VQO.

Existing Plan Direction	SNFPA (page)	2017 Forest Plan Direction (page)	Where Existing Plan Component Applies	Resource Area	Existing Plan Component	S&G #	Proposed Project Specific Amendment?	How is SERAL Compliant?
111. Design prescribed fire treatments to minimize disturbance of ground cover and riparian vegetation in RCAs. In burn plans for project areas that include, or are adjacent to RCAs, identify mitigation measures to minimize the spread of fire into riparian vegetation. In determining which mitigation measures to adopt, weigh the potential harm of mitigation measures, for example fire lines, against the risks and benefits of prescribed fire entering riparian vegetation.	64	190	Riparian Conservation Areas, All Forests	RCO #4	Standard /Guideline	111	NA	2021-1117_DRAFT_SERAL_BMP_checklist
111. Strategies should recognize the role of fire in ecosystem function and identify those instances where fire suppression or fuel management actions could be damaging to habitat or long-term function of the riparian community.	64	190	Riparian Conservation Areas, All Forests	RCO #4	Standard /Guideline	111	NA	DEIS Chapter 1.01
Visual Resource Inventory and Planning (17-A): Mitigate visual loss resulting from approved major projects such as highway widening or realignment, transmission lines, mining operations, dams, reservoirs, conduits, penstocks, etc. Coordinate closely with proponents. Start mitigation during the planning and design stage.	NA	153	Scenic Corridor	Visual Resources	Standard /Guideline		NA	VQO Objectives will be identified for proposed treatment areas prior to implementation and prescriptions will include specific mitigation measures or specifications to ensure the treatments do not alter the landscape beyond the adopted VQO.
Visual Resource Inventory and Planning (17-A): Provide project level data to aid in meeting visual quality objectives.	NA	153	Scenic Corridor	Visual Resources	General Direction	NA	NA	VQO Objectives will be identified for proposed treatment areas prior to implementation and prescriptions will include specific mitigation measures or specifications to ensure the treatments do not alter the landscape beyond the adopted VQO.
113. Utilize low ground pressure equipment, helicopters, over the snow logging, or other non-ground disturbing actions to operate off of existing roads when needed to achieve RCOs. Ensure that existing roads, landings, and skid trails meet Best Management Practices. Minimize the construction of new skid trails or roads for access into RCAs for fuel treatments, salvage harvest, commercial fuelwood cutting, or hazard tree removal	64-65	190	Riparian Conservation Areas and Critical Aquatic Refuges, All Forests	RCO #4	Standard /Guideline	113	NA	2021-1117_DRAFT_SERAL_BMP_checklist
VQO - Partial Retention (17-B-3): Base size, shape and dispersion of harvest units, road construction and other resource disturbances on meeting Partial Retention, where this is the adopted VQO as shown on Map I-8.	NA	153	Scenic Corridor	Visual Resources	Standard /Guideline		NA	VQO Objectives will be identified for proposed treatment areas prior to implementation and prescriptions will include specific mitigation measures or specifications to ensure the treatments do not alter the landscape beyond the adopted VQO.
VQO - Partial Retention (17-B-3): Design land and vegetation disturbance projects to meet Partial Retention, in Middleground distance zones where this is the VQO.	NA	153	Scenic Corridor	Visual Resources	General Direction	NA	NA	VQO Objectives will be identified for proposed treatment areas prior to implementation and prescriptions will include specific mitigation measures or specifications to ensure the treatments do not alter the landscape beyond the adopted VQO.
VQO - Retention (17-B-2): Maintain the visual character of Foreground Retention areas for the pleasure of the viewing public, where this is the VQO. Design land and vegetation disturbance projects to meet Retention, in Middleground distance zones where these is the VQO.	NA	153	Scenic Corridor	Visual Resources	General Direction	NA	NA	VQO Objectives will be identified for proposed treatment areas prior to implementation and prescriptions will include specific mitigation measures or specifications to ensure the treatments do not alter the landscape beyond the adopted VQO.

Existing Plan Direction	SNFPA (page)	2017 Forest Plan Direction (page)	Where Existing Plan Component Applies	Resource Area	Existing Plan Component	S&G #	Proposed Project Specific Amendment?	How is SERAL Compliant?
VQO - Retention (17-B-2): Manage to a VQO of Retention. Base size, shape, and dispersion of harvest units, road construction, and other resource disturbances on meeting Retention, where this is the adopted VQO as shown on Map I-8.	NA	153	Scenic Corridor	Visual Resources	Standard /Guideline		NA	VQO Objectives will be identified for proposed treatment areas prior to implementation and prescriptions will include specific mitigation measures or specifications to ensure the treatments do not alter the landscape beyond the adopted VQO.
VQO Modification (17-B-4): Manage to the VQO of Modification. This is the adopted VQO level for developed (non-recreation) sites.	NA	178	Developed (Non-Recreation) Sites	Visual Resources	Standard /Guideline		NA	VQO Objectives will be identified for proposed treatment areas prior to implementation and prescriptions will include specific mitigation measures or specifications to ensure the treatments do not alter the landscape beyond the adopted VQO.
VQO Modification (17-B-4): Structures may visually dominate the characteristic landscapes, but should borrow the form, line, color and texture of the natural surroundings.	NA	178	Developed (Non-Recreation) Sites	Visual Resources	General Direction	NA	NA	VQO Objectives will be identified for proposed treatment areas prior to implementation and prescriptions will include specific mitigation measures or specifications to ensure the treatments do not alter the landscape beyond the adopted VQO.
VQO Modification (17-B-4): This is an acceptable VQO for certain developed sites, but preferably should be upgraded to Partial Retention where physical developments allow, by applying Partial Retention Standards and Guidelines to all areas of the developed site	NA	161	Developed Recreation Sites	Visual Resources	Standard /Guideline		NA	VQO Objectives will be identified for proposed treatment areas prior to implementation and prescriptions will include specific mitigation measures or specifications to ensure the treatments do not alter the landscape beyond the adopted VQO.
118. During project analysis, survey, map, and develop measures to protect bogs and fens from such activities as trampling by livestock, pack stock, humans, and wheeled vehicles. Criteria for defining bogs and fens include, but are not limited to, presence of: (1) sphagnum moss (Spagnum s), (2) mosses belonging to the genus Meessia, and (3) sundew (Drosera s) Complete initial plant inventories of bogs and fens within active grazing allotments prior to re-issuing permits.	65	191	Riparian Conservation Areas and Critical Aquatic Refuges, All Forests	RCO #5	Standard /Guideline	118	NA	2021-1117_DRAFT_SERAL_BMP_checklist
VQO Partial Retention (17-B-3): Manage to a VQO of Partial Retention. This is the adopted VQO for developed recreation sites. Maintain or construct recreation facilities and roads within the site in order to be as obscure as possible when viewed from within or immediately adjacent to the site. Plant and maintain the optimum amount of vegetation in order to keep a natural appearing setting that functionally and aesthetically satisfies visitors when viewed from within or immediately adjacent to the site.	NA	161	Developed Recreation Sites	Visual Resources	Standard /Guideline		NA	VQO Objectives will be identified for proposed treatment areas prior to implementation and prescriptions will include specific mitigation measures or specifications to ensure the treatments do not alter the landscape beyond the adopted VQO.
VQO Partial Retention (17-B-3): Provide a natural appearing forest setting within the constraints of existing site character and it's kind of use.	NA	161	Developed Recreation Sites	Visual Resources	General Direction	NA	NA	VQO Objectives will be identified for proposed treatment areas prior to implementation and prescriptions will include specific mitigation measures or specifications to ensure the treatments do not alter the landscape beyond the adopted VQO.
118. Prohibit or mitigate ground-disturbing activities that adversely affect hydrologic processes that maintain water flow, water quality, or water temperature critical to sustaining bog and fen ecosystems and plant species that depend on these ecosystems.	65	191	Riparian Conservation Areas and Critical Aquatic Refuges, All Forests	RCO #5	Standard /Guideline	118	NA	2021-1117_DRAFT_SERAL_BMP_checklist

Existing Plan Direction	SNFPA (page)	2017 Forest Plan Direction (page)	Where Existing Plan Component Applies	Resource Area	Existing Plan Component	S&G #	Proposed Project Specific Amendment?	How is SERAL Compliant?
Wild and Scenic Rivers and Proposed Wild and Scenic Rivers: Manage to Forestwide S&Gs for Closed Motor Vehicle Travel Management, except for: 4N80Y; 5N02R (NMFPA). Clark Fork: Headwaters - Wilderness Clavey River: Bell Creek (6 mile Wild portion) Lily Creek (9 mile Wild portion) 3N01 - Cottonwood Road (4 mile Wild portion) Cottonwood Road - Tuolumne (14 mile Wild portion) Middle Fork Stanislaus: Kennedy Creek Clark Fork - Donnell Reservoir Sand Bar - North Fork Stanislaus North Fork Mokelumne Wilderness - Salt Springs Reservoir North Fork Stanislaus: Highland Creek - McKays (13 mile Wild portion) McKays - Middle Fork Stanislaus South Fork Tuolumne: Middle Fork Tuolumne - Tuolumne River Stanislaus: North/Middle Fork Stanislaus to Clark Flat Tuolumne: Yosemite - Early Intake; Cherry Creek - Lumsden; Lumsden Area - Don Pedro Conduct surveys, observe conditions and carry out rehabilitation, as needed, to eliminate evidence of, and access by, unauthorized motorized use.	NA	110-11	Wild and Scenic Rivers and Proposed Wild and Scenic Rivers	Recreation	Standard /Guideline	Wild and Scenic Rivers and Proposed Wild and Scenic Rivers	NA	DEIS Chapter 3.01 - Issue 5 Table 31. DEIS Chapter 2.03 E.6;

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71. Within the assessment area or watershed, locate fuels treatments to minimize impacts to PACs. PACs may be re-mapped during project planning to avoid intersections with treatment areas, provided that the re-mapped PACs contain habitat of equal quality and include known nest sites and important roost sites. Document PAC adjustments in biological evaluations. When treatment areas must intersect PACs and choices can be made about which PACs to enter, use the following criteria to preferentially avoid PACs that have the highest likely contribution to owl productivity.• lowest contribution to productivity: PACs presently unoccupied and historically occupied by territorial singles only.• PACs presently unoccupied and historically occupied by pairs,• PACs presently occupied by territorial singles, • PACs presently occupied by pairs,• highest contribution to productivity: PACs currently or historically reproductive.Historical occupancy is considered occupancy since 1990. Current occupancy is based on surveys consistent with survey protocol (March 1992) in the last 2-3 years prior to project planning. These dates were chosen to encompass the majority of survey efforts and to include breeding pulses in the early 1990s when many sites were found to be productive. When designing treatment unit intersections with PACs, limit treatment acres to those necessary to achieve strategic placement objectives and avoid treatments adjacent to nest stands whenever possible. If nesting or foraging habitat in PACs is mechanically treated, mitigate by adding acreage to the PAC equivalent to the treated acres using adjacent acres of comparable quality wherever possible.	59-60	180-181	California Spotted Owl and Northern Goshawk PACs, All Forests	California Spotted Owl and northern goshawk PACs	Standard /Guideline		Yes, See DEIS Appendix B Table B.1	After updated survey information is completed, CSO PACs will be updated based on SPEC-CSO-GDL-02 (DEIS Appendix B, Table B.1) or existing plan direction for Alternative 3 and 4 to avoid the proposed fuelbreak network.
76. For northern goshawk PACs: Maintain a limited operating period (LOP), prohibiting vegetation treatments within approximately ¼ mile of the nest site during the breeding season (February 15 through September 15) unless surveys confirm that northern goshawks are not nesting. If the nest stand within a protected activity center (PAC) is unknown, either apply the LOP to a ¼- mile area surrounding the PAC, or survey to determine the nest stand location.	60		Northern Goshawk PACs, All Forests	California Spotted Owl and northern goshawk PACs	Standard /Guideline	76		DEIS Chapter 2.03- F.4
113. Allow hazard tree removal within RCAs or CARs. Allow mechanical ground disturbing fuels treatments, salvage harvest, or commercial fuelwood cutting within RCAs or CARs when the activity is consistent with RCOs.	64-65		Riparian Conservation Areas and Critical Aquatic Refuges, All Forests	RCO #4	Standard /Guideline		NA	2021-1118_DRAFT_SERAL Watershed Report; 2021-1117_DRAFT_SERAL_BMP_checklist